

JVC

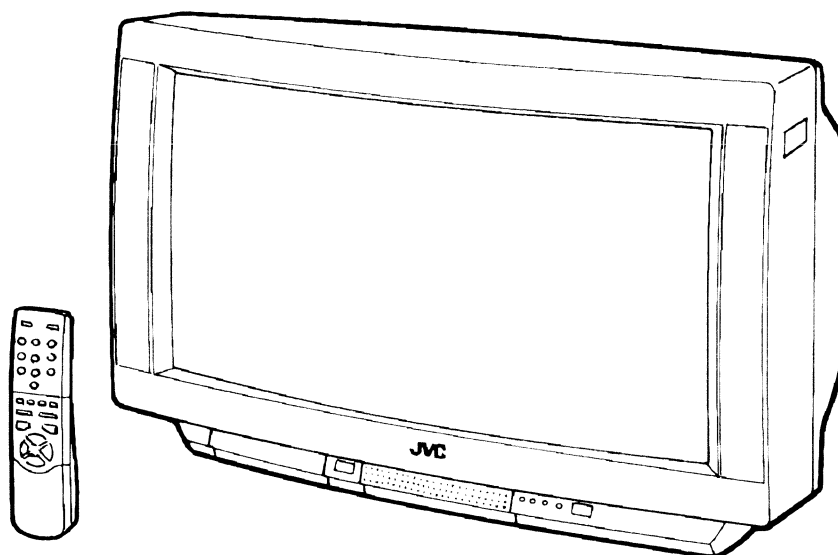
SERVICE MANUAL

COLOUR TELEVISION

BASIC CHASSIS

MB

AV-32WP2EN(A) AV-32WP2EP(A)




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SPECIFICATIONS

| Item | Content |
|---|--|
| Dimensions (W × H × D) Mass | 805mm × 550mm × 550mm 54.8kg |
| TV RF System Colour System Stereo System Teletext System | CCIR(B/G,I,L) EN MODEL:B/G ONLY PAL / SECAM / NTSC(Only in EXT mode) A2/NICAM TOP/FLOF |
| Receiving Frequency VHF UHF | 47MHz~ 470MHz 470MHz~862MHz |
| Intermediate Frequency VIF Carrier SIF Carrier | 38.9MHz(B/G,I,L) EN MODEL:B/G ONLY 33.4(5.5MHz),33.5(6.0MHz) EN MODEL: 5.5MHz ONLY |
| Colour Sub Carrier Freq. PAL SECAM NTSC | 4.43MHz 4.0625MHz / 4.25MHz 3.58MHz / 4.43MHz |
| Power Input Power Consumption | AC 220V~240V , 50Hz 170W(Max) /160W(Avg) |
| Picture Tube High Voltage | Visible size : 76cm, Measured diagonally 31.0Kv +1kV (at zero beam current) -1.5kV |
| Speaker Audio Output | φ 10cm round (4Ω) × 2 20W + 20W |
| EXT-1/EXT-2/EXT-3 (Input/Output) EXT4(Input) Video Audio(L/R) Aerial Input Term Headphone jack | 21-pin Euro connector(SCART socket) 1Vp-p 75Ω (RCA pin jack) 500mVrms(-4dBs), High Impedance (RCA pin jack) 75Ω unbalanced, Coaxial Stereo mini jack (φ 3.5mm) |
| Remote Control Unit | RM-C791 AAA(R03) dry battery × 2 |

Design & specification are subject to change without notice.

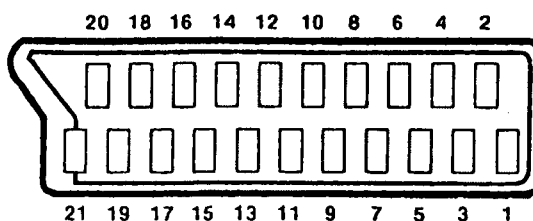
★ Manufactured under license from Dolby Laboratories Licensing Corporation.
“Dolby” and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

■ 21-pin Euro connector (SCART socket) : EXT-1 / EXT-2 / EXT-3

(P-P= Peak to Peak, S-W= Sync tip to white peak, B-W= Blanking to white peak)

| Pin No. | Signal Designation | Matching Value | EXT-1 | EXT-2 | EXT-3 |
|---------|--------------------------|--|---------------|-----------------|---------------|
| 1 | AUDIO R output | 500mVrms(Nominal), Low impedance | ○ (TV OUT) | ○ (LINE OUT) | NC |
| 2 | AUDIO R input | 500mVrms(Nominal), High impedance | ○ | ○ | ○ |
| 3 | AUDIO L output | 500mVrms(Nominal), Low impedance | ○ (TV OUT) | ○ (LINE OUT) | NC |
| 4 | AUDIO GND | | ○ | ○ | ○ |
| 5 | GND (B) | | ○ | ○ | ○ |
| 6 | AUDIO L input | 500mVrms(Nominal), High impedance | ○ | ○ | ○ |
| 7 | B input | 700mV _{B-W} , 75Ω | ○ | NC | NC |
| 8 | FUNCTION SW (SLOW SW) | Low : 0-3V, High : 8-12V, High impedance | ○ | ○ | ○ |
| 9 | GND (G) | | ○ | ○ | ○ |
| 10 | -- | | NC | -- | NC |
| 10 | SCL3 | | -- | ○ | -- |
| 11 | G input | 700mV _{B-W} , 75Ω | ○ | NC | NC |
| 12 | -- | | NC | -- | NC |
| 12 | SDA3 | | -- | ○ | -- |
| 13 | GND (R) | | ○ | ○ | ○ |
| 14 | GND (Y _S) | | ○ | NC | NC |
| 15 | R / C input | R : 700mV _{B-W} , 75Ω C : 300mV _{P-P} , 75Ω | ○ (only R) | ○ (only C) | ○ (only C) |
| 16 | Ys input | Low : 0 - 0.4, High : 1 - 3V, 75Ω | ○ | NC | NC |
| 17 | GND(VIDEO output) | | ○ | ○ | ○ |
| 18 | GND(VIDEO input) | | ○ | ○ | ○ |
| 19 | VIDEO output | 1V _{S-W} (Negative going sync), 75Ω | ○ (TV) | ○ (LINE OUT) | NC |
| 20 | VIDEO / Y input | 1V _{S-W} (Negative going sync), 75Ω | ○ | ○ | ○ |
| 21 | COMMON GND | | ○ | ○ | ○ |

[Pin assignment]



SAFETY PRECAUTIONS

1. The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (Δ) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
4. **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED(NEUTRAL) : (⌋) side GND and EARTH : (⊕) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.
If above note will not be kept, a fuse or any parts will be broken.
5. If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).
6. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
7. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.
8. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

9. Isolation Check

(Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

(1) Dielectric Strength Test

The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second.

(... Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)

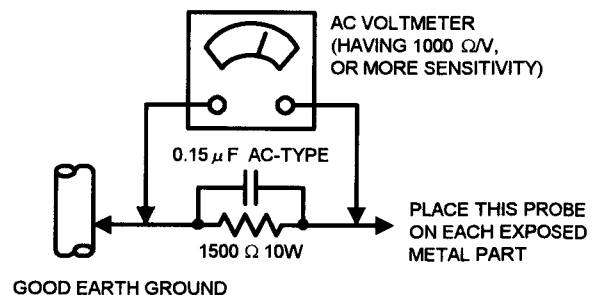
This method of test requires a test equipment not generally found in the service trade.

(2) Leakage Current Check

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

● Alternate Check Method

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).



SPECIFIC SERVICE INSTRUCTIONS

REPLACEMENT OF CHIP COMPONENT

■ CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

■ SOLDERING IRON

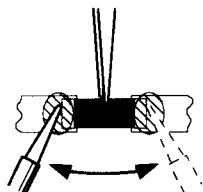
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

■ REPLACEMENT STEPS

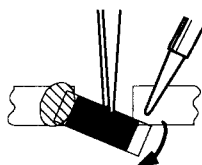
1. How to remove Chip parts

◆ Resistors, capacitors, etc

- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



- (2) Shift with tweezers and remove the chip part.

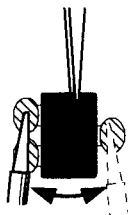


◆ Transistors, diodes, variable resistors, etc

- (1) Apply extra solder to each lead.



- (2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

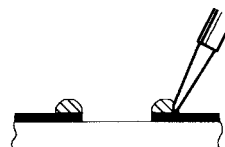


Note : After removing the part, remove remaining solder from the pattern.

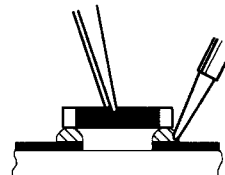
2. How to install Chip parts

◆ Resistors, capacitors, etc

- (1) Apply solder to the pattern as indicated in the figure.

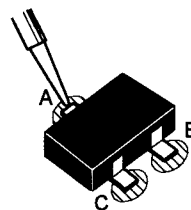


- (2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

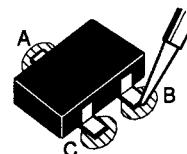


◆ Transistors, diodes, variable resistors, etc

- (1) Apply solder to the pattern as indicated in the figure.
- (2) Grasp the chip part with tweezers and place it on the solder.
- (3) First solder lead A as indicated in the figure.

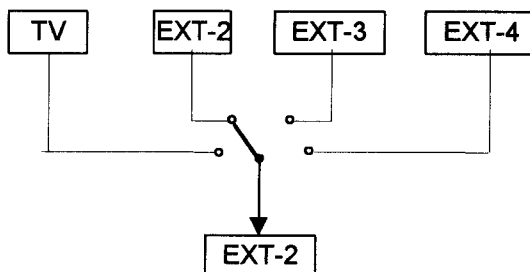


- (4) Then solder leads B and C.



FEATURES

- By preference, users can select the picture size from PANORAMIC, REGULAR, FULL, 14:9 ZOOM, 16:9 ZOOM, 16:9 ZOOM SUB TITLE modes. When the TV unit received WSS picture signal, the picture can be changed to 16:9 ZOOM mode automatically.
- The TELETEXT SYSTEM has a built-in TOP and FLOF system.
- Thanks to the newly employed DSP control micro computer, users can select 3D-PHONIC, and enjoy Surround effect at each mode.
- Because this TV unit corresponds to multiplex broadcast, users can enjoy music programs and sporting events with live realism. In addition, BILINGUAL programs can be heard in their original language.
- In accordance with the brightness in a room, the brightness and/or contrast of the picture can be adjusted automatically to make the optimum picture which is easy on the eye.
- Users can make VTR dubbing of picture and sound by controlling the AV selector to select an optional source at the EXT-2 output shown in figure.



DISASSEMBLY PROCEDURE

REMOVING THE REAR COVER

1. Unplug the power cord.
2. Remove the 13 screws marked "A" as shown in the Fig. 1.
3. Withdraw the rear cover toward you.

REMOVING THE CHASSIS

- After removing the rear cover.
1. Slightly raise the both sides of the chassis by hand and remove the two claws under the both sides of the chassis from the front cabinet.
 2. Withdraw the chassis backward.
(If necessary, take off the wire clamp, connectors etc.)

REMOVING THE AV TERMINAL BOARD

- After removing the rear cover.
1. Remove the 6 screws marked "B" as shown in the Fig. 1.
 2. While raising the claw marked "C", remove the top of the AV TERMINAL BOARD slightly in the direction of arrow "D" as shown in Fig. 2.

REMOVING THE SPEAKER BOX

- After removing the rear cover.
1. Remove the 2 screws marked "E" as shown in Fig. 1.
 2. Follow the same steps when removing the other hand speaker box.

NOTE : When removing the screws marked "E" of the speaker box, remove the lower side screw first, and then remove the upper screw.

CHECKING THE PW BOARD

To check the back side of the PW Board.

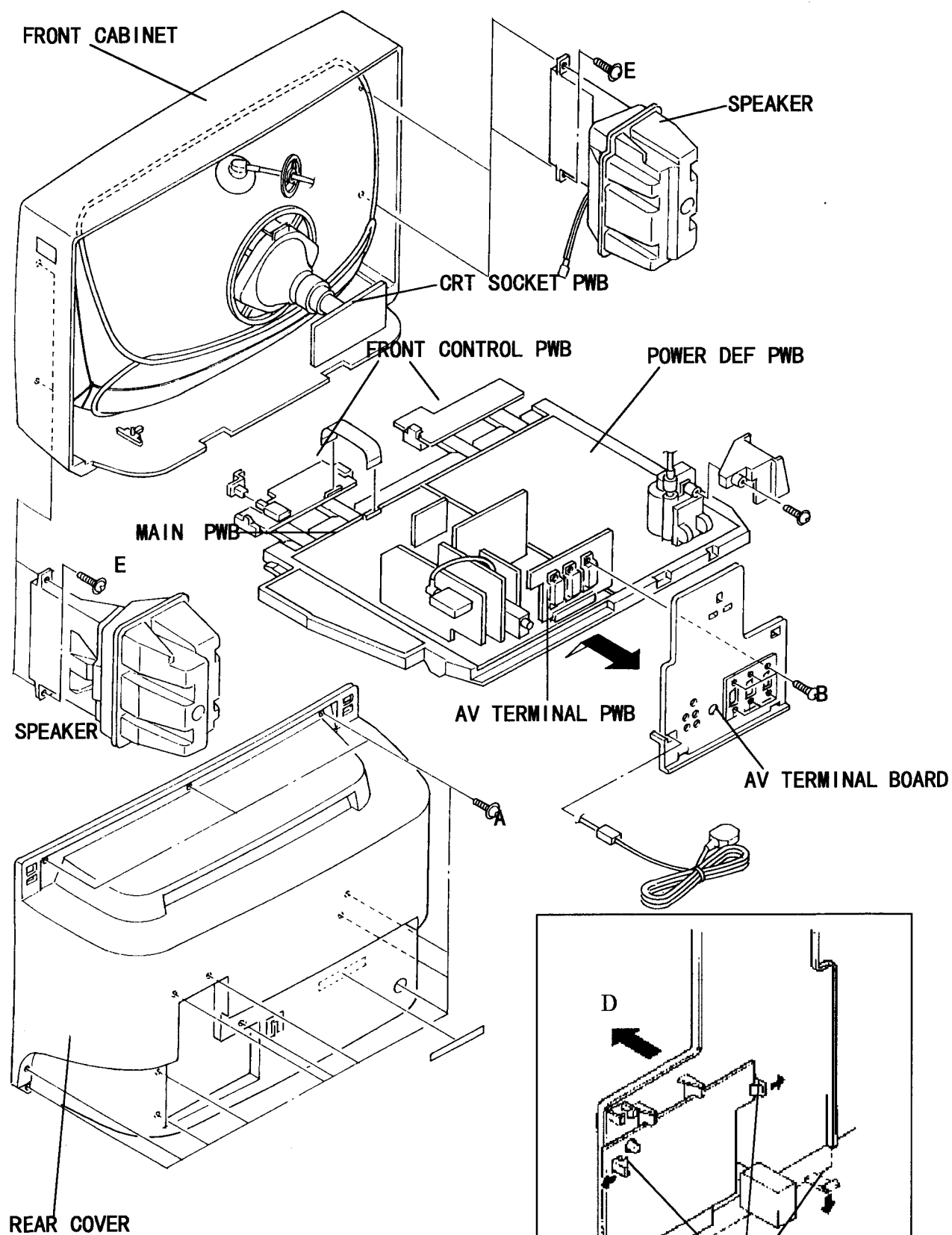
- 1) Pull out the chassis. (Refer to REMOVING THE CHASSIS).
- 2) Erect the chassis vertically so that you can easily check the back side of the PW Board.

[CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- When conducting a check with power supplied, be sure to confirm that the CRT EARTH WIRE (BRAIDED ASS'Y) is connected to the CRT SOCKET PW board.

WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire.
2. Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.



REMOVING THE CRT

*Replacement of the CRT should be performed by 2 or more persons.

- After removing the cover, chassis etc.,
- 1. Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig.3).
- 2. While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig.4.
- 3. Remove 4 screws marked by arrows with a box type screw driver as shown in Fig.4.
- Since the cabinet will drop when screws have been removed, be sure to support the cabinet with hands.
- 4. After 4 screws have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front surface of the cabinet) shown in Fig.5.
- The CRT should be assembled according to the opposite sequence of its dismantling steps.
- * The CRT change table should preferably be smaller than the CRT surface, and its height be about 35cm.

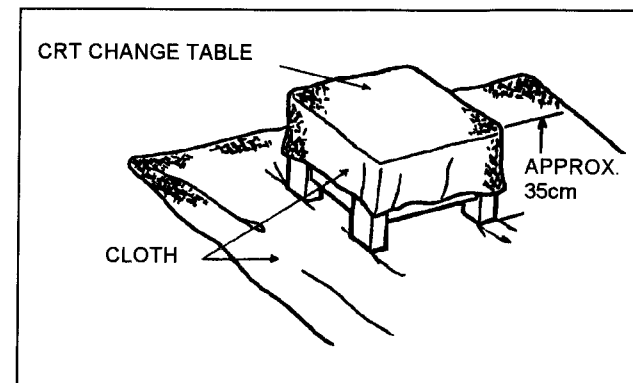


Fig. 3

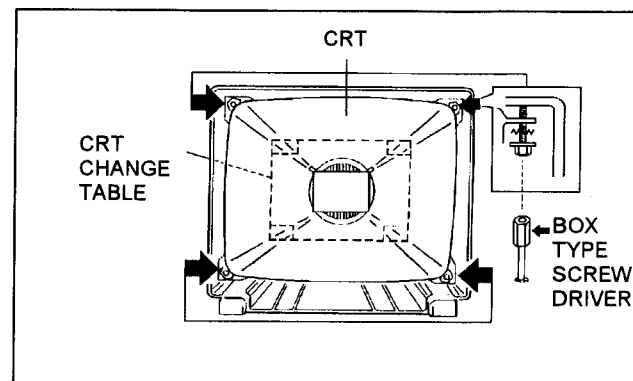


Fig. 4

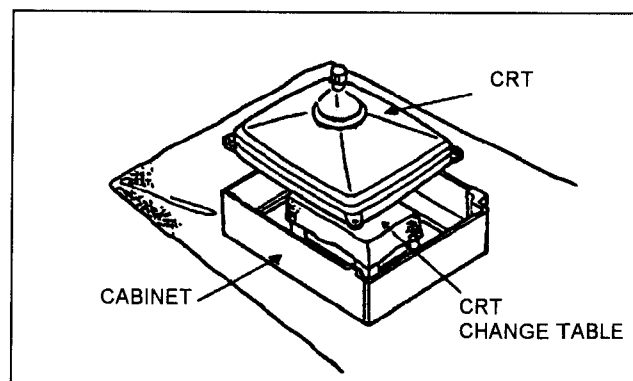


Fig. 5

COATING OF SILICON GREASE FOR ELECTRICAL INSULATION ON THE CRT ANODE CAP SECTION.

- Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismantling them, be sure to coat silicon grease for electrical insulation as shown in Fig.6.

Wipe around the anode button with clean and dry cloth. (Fig.6)

Coat silicon grease on the section around the anode button. At this time, take care so that any silicon greases dose not stick to the anode button. (Fig.7)

★ Silicon grease product No. KS - 650N

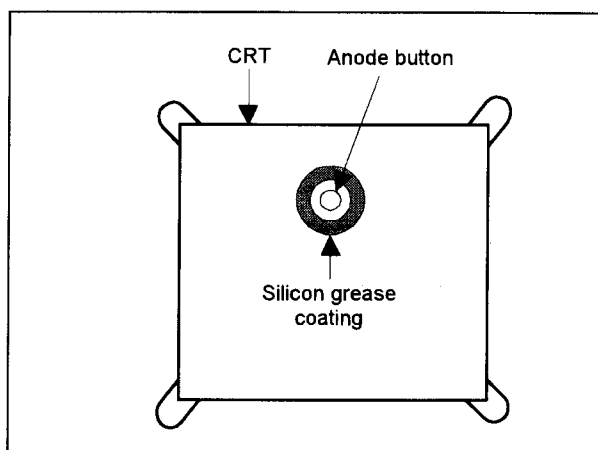


Fig. 6

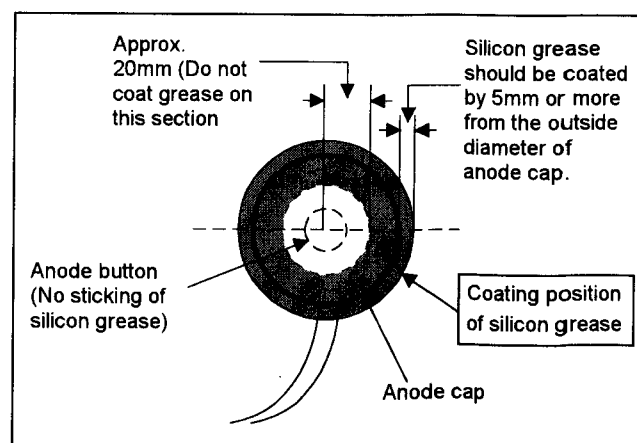


Fig. 7

REPLACEMENT OF MEMORY ICs

1. Memory ICs

This TV use memory ICs (EEP-ROM IC). In the memory ICs, there are memorized data for correctly operating the video and deflection circuits. When replacing memory ICs, be sure to use ICs written with the initial values of data.

2. Procedure for replacing memory ICs

| PROCEDURE | |
|---|--|
| (1) Power off | Switch the power off and unplug the power code from the outlet. |
| (2) Replace ICs. | Be sure to use memory ICs written with the initial data values. |
| (3) Power on | Plug the power code into the outlet and switch the power on. |
| (4) Check and set SYSTEM CONSTANT SET: | <ol style="list-style-type: none"> 1) Press the INFORMATION key and the MUTE key of the REMOTE CONTROL UNIT simultaneously. 2) The SERVICE MENU screen of Fig. 1 will be displayed. 3) While the SERVICE MENU is displayed, press the INFORMATION key and MUTE key simultaneously, and the SYSTEM CONSTANT SET screen of Fig. 2 will be displayed. 4) Check the setting values of the SYSTEM CONSTANT SET of Table 1. If the value is different, select the setting item with the FUNCTION UP/DOWN key, and set the correct value with the FUNCTION +/- key. 5) Press the MENU key to memorize the setting value. 6) Press the INFORMATION key twice, and return to the normal screen. |
| (5) Setting of receive channels | Set the receive channel. For setting, refer to the OPERATING INSTRUCTIONS. |
| (6) User settings | Check the user setting values of Table 2, and if setting value is different, set the correct value. For setting, refer to the OPERATING INSTRUCTIONS. |
| (7) Setting of SERVICE MENU | Verify the setting items of the SERVICE MENU of Table 3, and reset where necessary. For setting, refer to the SERVICE ADJUSTMENTS. |

SERVICE MENU


| SERVICE MENU | |
|---|--------|
| 1. IF | 2. V/C |
| 3. AUDIO | 4. DEF |
| 5. VSM PRESET | 6. VPS |
| 7. PIP | |
| 8. AUTO PROGRAM (OFF) | |
| 1-8 : SELECT  : EXIT | |

Fig.1

SYSTEM CONSTANT SET








| SYSTEM CONSTANT SET | |
|---|--|
| SOFT VER.=(V*.****) | |
| COUNTRY | :EP |
| INCH | :32 |
| MODEL | :WP2 |
| - +  : STORE |  : EXIT |
| JVC MB WIDE VOO | |
| M37207MF-XXXSP | |

Fig.2
[AV-32WP2EN]

NAME OF REMOTE CONTROL KEY

| Names of key | key |
|------------------|---|
| INFORMATION |  |
| MUTE |  |
| MENU |  |
| FUNCTION UP/DOWN |  |
| FUNCTION +/- |  |

SETTING VALUES OF SYSTEM CONSTANT SET (TABLE 1)

| Setting item | Setting content | Setting value | |
|--------------|------------------|---------------|------------|
| | | AV-32WP2EN | AV-32WP2EP |
| 1. COUNTRY | ▶ EN → EP → EK ◀ | EN | EP |
| 2. INCH | ▶ 28 → 32 → 24 ◀ | 32 | 32 |
| 3. MODEL | ▶ WP2 → WZ2 ◀ | WP2 | WP2 |

USER SETTING VALUES (TABLE 2)

| Setting item | | | Setting value | | |
|-----------------|-----------------------|-----------------------------|-----------------------------|-------------|-------------------------------|
| SUB POWER | | | ON | | |
| CHANNEL | | | 1 POSITION | | |
| CHANNEL PRESET | | | See;OPERATING INSTRUCTUONS. | | |
| VOLUME | | | Appropriate sound volume | | |
| TV / EXT | | | TV | | |
| DISPLAY | | | CHANNEL DISPLAY | | |
| ZOOM MODE | | | REGULAR | | |
| POWER BASS | | | OFF | | |
| PIP | | | OFF | | |
| PICTURE FEATURE | LFR | OFF | PROLOGIC 3D PHONIC | MODE | CINEMA/SPORT |
| | VNR | OFF | | LEVEL | CENTER |
| | 4:3 AUTO ASPECT | PANORAMIC | | TV/SPEAKER | L/R/C |
| | COLOR SYSTEM | TV:depend on PR EXT:AUTO | | VOLUME | MAX |
| | PIP POSITION | Right below | DOLBY PRO LOGIC | MODE | NORMAL |
| | MULTI PICTURE | 12 PICTURES | | TV SPEAKER | L/R/C |
| | PICTURE TILT | CENTER | | TEST TONE | OFF |
| SOUND SETTING | BASS,TRE BALA | CENTER | | VOLUME | MAX |
| | SPEAKER | ON | INSTALL | LANGUAGE | ENGLISH |
| | HEAD PHONE VOLUME | 20 | EXT SOURCE | EXT SETTING | ID:NO INPUT S-IN:NO INPUT |
| | HEAD PHONE OUTPUT | MAIN | | DUBBING | EXT-1 →EXT-2 |
| | HEAD PHONE TV SPEAKER | OFF | FEATURES | SLEEP TIMER | OFF |
| | | | | BLUE BACK | ON |
| | | | | CHILD LOCK | ID NO.0000 all channel off |
| DIGITAL SRROUND | | | PICTURE SETTING | TINT | COOL |
| | | | | SETTING | RESET |
| | | | | ECO | OFF |

SERVICE MENU SETING ITEMS (TABLE 3)

| Setting item | Setting value | Setting item | Setting value |
|-----------------------------------|---|---|--|
| 1. IF | 1. VCO 2. DELAY POINT 3. L. V. LEVEL 4. ATT | 4. DEF. | 1. V-SHIFT 2. V-SLOPE 3. V-SIZE 4. H-CENT 5. H-SIZE 6. EW-PIN 7. EW-COR 8. TRAPEZ 9. V-S.CR 10. EHT-COMP 11. CLAMP |
| 2. V / C | 1. RGB BLK 2. R DRIVE 3. G DRIVE 4. B DRIVE 5. R LEVEL 6. G LEVEL 7. B LEVEL 8. BRIGHT 9. CONT. 10. COLOUR(PAL/SECAM/NTSC) 11. HUE 12. PEAK DRIVE 13. GAMMA 14. VCOF 15. RELC | 5. VSM PRESET [COOL NORMAL WARM] | 1. BRIGHT 2. CONT. 3. COLOUR 4. SHARP 5. HUE 6. R DRIVE 7. G DRIVE 8. B DRIVE 9. BASS 10. TREBLE |
| 3. AUDIO / OSD (Do not adjust) | 1. CONC LIMIT 2. A2 ID THR 3. JVC LOGO H 4. TEXT MONO H 5. TEXT MIX H | 6. VPS (Do not adjust) | VPS |
| | | 7. PIP | 1. MAIN BRIGHT 2. MAIN R-Y 3. MAIN B-Y 4. SUB BRIGHT 5. SUB R-Y 6. SUB B-Y 7. V-CENTER 8. H-CENTER |
| | | 8. AUTO PROGRAM (Do not adjust) | ON / OFF |

SERVICE ADJUSTMENT

BEFORE STARTING SERVICE ADJUSTMENT

1. There are 2 ways of adjusting this TV: One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.
2. The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
3. Turn on the power of the TV and measuring instrument for warming up for at least 30 minutes before starting adjustment.
4. Make sure that connection is correctly made to AC power source.
5. If the receive or input signal is not specified, use the most appropriate signal for adjustment.
6. Never touch parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.
7. Preparation for adjustment (presetting):
Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT:

| | |
|------------------------|---------|
| (1) PICTURE MODE (VSM) | COOL |
| (2) SLEEP TIMER | OFF |
| (3) DIGITAL SURROUND | OFF |
| (4) BALANCE | CENTER |
| (5) ECO | OFF |
| (6) ZOOM | REGULAR |

MEASURING INSTRUMENT AND FIXTURES

1. DC voltmeter (or digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator) [PAL/SECAM/NTSC]
4. Remote control unit

ADJUSTMENT ITEMS

- Check of B1 voltage.
- Adjustment of FOCUS.
- IF circuit adjustment.
- VSM preset adjust setting.
- VIDEO / CHROMA circuit adjustment.
- DEFLECTION circuit adjustment.
- AUDIO circuit adjustment. (Do not adjust)

BASIC OPERATION OF SERVICE MENU

1. TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

2. SERVICE MENU ITEMS

With the SERVICE MENU, various settings (adjustments) can be made, and they are broadly classified in the following items of settings (adjustments):

- (1) **1. IF** This mode adjusts the setting values of the IF circuit.
- (2) **2.V/C** This mode adjusts the setting values of the VIDEO / CHROMA circuit.
- (3) **3.AUDIO / OSD** This mode adjusts the setting values of the multiplicity SOUND circuit.
- (4) **4.DEF** This mode adjusts the setting values of the DEFLECTION circuit for each aspect mode given below.

| | |
|---------------------|-----------|
| PANORAMIC | (50/60Hz) |
| REGULAR | (50/60Hz) |
| 14:9 ZOOM | (50/60Hz) |
| 16:9 ZOOM | (50/60Hz) |
| 16:9 ZOOM SUB TITLE | (50/60Hz) |
| FULL | (50/60Hz) |
- (5) **5.VSM PRSET** This mode adjusts the initial setting values of COOL,NOMAL and WARM.
(VSM : Video Status Memory)
- (6) **6.VPS** This mode shows the monitor of the VPS and PDC. **(Do not adjust)**.
(VPS : Video Program System, PDC : Program Delivery Code)
- (7) **7.PIP** This mode adjusts the setting values of the PIP circuit.
- (8) **8.AUTO PROGRAM** By turning the power switch on, you can get the state of AUTO PROGRAM. **(Do not adjust)**

3. BASIC OPERATION OF SERVICE MENU

(1) How to enter SERVICE MENU

Press the INFORMATION key and the MUTE key of the REMOTE CONTROL UNIT simultaneously, and the SERVICE MENU screen of Fig. 1 will be displayed.

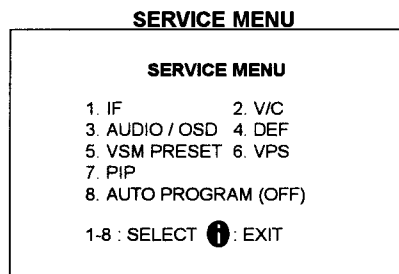


Fig.1

(2) Selection of SUB MENU SCREEN

Press one of keys 1~7 of the REMOTE CONTROL UNIT and select the SUB MENU SCREEN (See Fig. 3), form the SERVICE MENU.

SERVICE MENU → SUB MENU

1. IF
2. V / C
3. AUDIO / OSD
4. DEF.
5. VSM PRESET
6. VPS
7. PIP
8. AUTO PROGRAM

NEME OF REMOTE CONTOROL KEY

| Names of key | key |
|------------------|-----|
| INFORMATION | |
| MUTE | |
| MENU | |
| FUNCTION UP/DOWN | |
| FUNCTION +/- | |

Fig.2

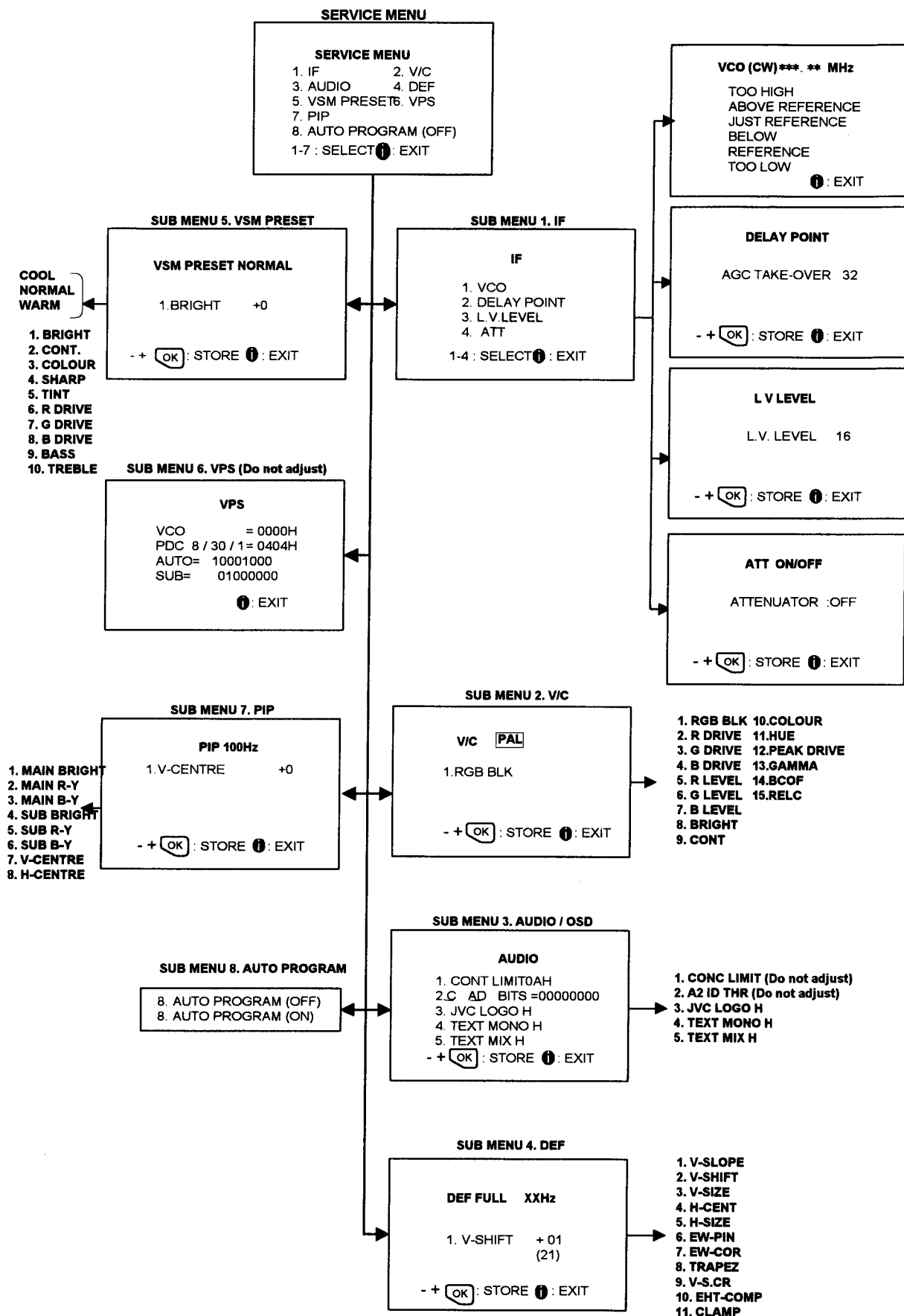


Fig. 3 SUB MENU SCREEN

(3) Method of Setting

1) Method of Setting 1.IF

[1. VCO]

- ① 1 Key Select 1.IF.
- ② 1 Key Select 1.VCO
- ③ The VCO (CW) screen will be displayed in yellow when the AFC voltage is at a certain level and in blue when it is at other levels.
- ④ INFORMATION Key As you press this twice, you will return to the **SERVICE MENU**.

[2. DELAY POINT]

- ① 1 Key Select 1.IF.
- ② 2 Key Select 2.DELAY POINT.
- ③ FUNCTION +/- Set (adjust) the setting values of the setting items.
- ④ MENU Key Memorize the set value.
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF keys - if you do, the values will not be stored in memory.)
- ⑤ INFORMATION Key When this is pressed twice, you will return to the **SERVICE MENU**.

2) Method of setting 2.V/C, 3.AUDIO, 4.DEF, 5.VSM PRESET and 7.PIP.

- ① 2~5, 7 Key Select one from 2. V/C, 3. AUDIO, 4. DEF, 5. VSM PRESET and 7.PIP.
- ② FUNCTION UP/DOWN Key Select setting items.
- ③ FUNCTION +/- Set (adjust) the setting values of the setting items.
(When 1.RGB BLK of 2.V/C is selected, press the FUNCTION-/ + key, and the whole will change to a black picture. Press the 2 key, and the screen will return to the original screen.)
- ④ MENU Key Memorize the setting value.
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF key - if you do, the values will not be stored in memory.)
- ⑤ INFORMATION Key Return to the **SERVICE MENU** screen.

3) Method of setting 6.VPS and 8.AUTO PROGRAM.

- 6.VPS This mode displayed monitor of VPS systems. **Do not adjust**
- 8.AUTO PROGRAM When the MAIN POWER is turned on with the state of AUTO PROGRAM ON, you get a mode that initializes every existing set value including language selection. Because this mode is set at the factory upon completion of the adjustment, you need not to use it for service. **Do not adjust in this mode.**

(4) Release of SERVICE MENU

- 1) After completing the setting, return to the **SERVICE MENU**, then again press the **INFORMATION** key.

POWER SUPPLY CHECK

| Item | Measuring instrument | Test point | Adjustment part | Description |
|---------------------|----------------------------------|---|-----------------|---|
| Check of B1 voltage | Signal generator DC voltmeter | TP-91(B1) TP-E [X connector in POWER DEF PWB] | | <ol style="list-style-type: none"> 1. Receive a whole black signal. 2. Connect a DC voltmeter to TP-91(B1) and TP-E. 3. Make sure that the voltage is $DC141.4 \pm 2.0V$. |

FOCUS ADJUSTMENT

| Item | Measuring instrument | Test point | Adjustment part | Description |
|---------------------|----------------------|------------|-------------------|--|
| Adjustment of FOCUS | Signal generator | | FOCUS VR [In HVT] | <ol style="list-style-type: none"> 1. By turning the black VR FOCUS 2, adjust the picture so that the 5th vertical line from the left side of the cross-hatch picture becomes thinnest. 2. By turning the red VR FOCUS 1, adjust the picture so that the 3rd horizontal line from the upper side of the cross-hatch picture becomes uniform at the line center and its periphery. 3. Carry out adjustment by repeating the steps 2 and 3 above. 4. Make sure that when the screen is darkened, the lines remain in good focus. |

The diagram illustrates the focus adjustment process. The top portion shows a cross-hatch grid pattern. An arrow labeled 'FOCUS 1' points to the 3rd horizontal line from the top, and an arrow labeled 'FOCUS 2' points to the 5th vertical line from the left. The bottom portion shows a schematic of the internal focus control circuit, including a vacuum tube (HVT) with pins labeled 'RED FOCUS 1', 'BLACK FOCUS 2', and 'SCREEN'.

IF CIRCUIT ADJUSTMENT

| Item | Measuring instrument | Test point | Adjustment part | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------------------|-----------------------|--|---|--------------------------------|----------------|-----------------------|-----------------------------|------|----|-----|----------|---------------|--------|--------|-----------------|------|--------|--------|----------------|------|--------|-----------------|-----------------|------|--------|--------|---------|------|-----------------|--------|
| Adjustment of VCO (MAIN) | Remote control unit | | P. CW TRANSF. (T050) P.L-VL CW TRIM C (C052) [In IF PWB] | <ul style="list-style-type: none">Do not make any adjustment unless the adjustment is out of way and you cannot get correct PICTURE.1. Select 1.IF from the SERVICE MENU.2. Press 1 key and select 1.VCO.3. Select a receivable broadcast channel with the CHANNEL key.4. Turn the core of P. CW TRANSF. until the colour of the characters TOO HIGH displayed on the screen changes from blue to <u>Yellow</u>. (Step 1)5. Turn the core of P. CW TRANSF. until the colour of the characters TOO LOW changes from blue to <u>Yellow</u>. (Step 2)6. Then slowly turn back the core of P. CW TRANSF. until the colour of the characters JUST REFERENCE changes from blue to <u>Yellow</u>. (Step 3)7. In the district SECAM L broadcast channel with the CHANNEL key and adjust the P.L-VL CW TRIM. C in same manner as for above step. And necessary, readjust P. CW. TRANSF.8. Press the INFORMATION key three times to return to normal screen.9. Perform CHANNEL PRESET again, and make sure that each broadcast is being received properly. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div><div>VCO(CW) ***. ** MHz TOO HIGH ABOVE REFERENCE JUST REFERENCE BELOW REFERENCE TOO LOW i : EXIT</div><div>←<div>fv</div></div><div>←<div>YELLOW</div></div></div><table><tr><th rowspan="2">Screen display</th><th colspan="3">Step</th></tr><tr><th>1</th><th>→2</th><th>→ 3</th></tr><tr><td>TOO HIGH</td><td><u>Yellow</u></td><td>→ Blue</td><td>→ Blue</td></tr><tr><td>ABOVE REFERENCE</td><td>Blue</td><td>→ Blue</td><td>→ Blue</td></tr><tr><td>JUST REFERENCE</td><td>Blue</td><td>→ Blue</td><td>→ <u>Yellow</u></td></tr><tr><td>BELOW REFERENCE</td><td>Blue</td><td>→ Blue</td><td>→ Blue</td></tr><tr><td>TOO LOW</td><td>Blue</td><td>→ <u>Yellow</u></td><td>→ Blue</td></tr></table></div> | | | | | Screen display | Step | | | 1 | →2 | → 3 | TOO HIGH | <u>Yellow</u> | → Blue | → Blue | ABOVE REFERENCE | Blue | → Blue | → Blue | JUST REFERENCE | Blue | → Blue | → <u>Yellow</u> | BELOW REFERENCE | Blue | → Blue | → Blue | TOO LOW | Blue | → <u>Yellow</u> | → Blue |
| Screen display | Step | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | →2 | → 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOO HIGH | <u>Yellow</u> | → Blue | → Blue | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ABOVE REFERENCE | Blue | → Blue | → Blue | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| JUST REFERENCE | Blue | → Blue | → <u>Yellow</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BELOW REFERENCE | Blue | → Blue | → Blue | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOO LOW | Blue | → <u>Yellow</u> | → Blue | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adjustment of DELAY POINT | Remote control unit | | DELAY POINT (AGC TAKE-OVER) | <ul style="list-style-type: none">1. Receive a black and white signal (colour off).2. Select 1.IF from the SERVICE MENU.3. Select 2.DELAY POINT by pressing the 2 key on the remote control.4. Adjust the FUNCTION - or + key until video noise disappears.5. Press the MENU key and memorize the set value.6. Turn to other channels and make sure that there are no irregularities. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table><tr><th>Setting Item (Adjustment item)</th><th>Variable range</th><th>Initial setting value</th></tr><tr><td>DELAY POINT (AGC TAKE-OVER)</td><td>0~63</td><td>30</td></tr></table> | | | | | Setting Item (Adjustment item) | Variable range | Initial setting value | DELAY POINT (AGC TAKE-OVER) | 0~63 | 30 | | | | | | | | | | | | | | | | | | | | | |
| Setting Item (Adjustment item) | Variable range | Initial setting value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DELAY POINT (AGC TAKE-OVER) | 0~63 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adjustment of L,V LEVEL (EP MODEL ONLY) | Remote control unit Oscilloscope | | L, V LEVEL | <ul style="list-style-type: none">1. Receive a color bar signal. (SECAM-L,75% white)2. Connect the oscilloscope to EXT-1 PIN 19.3. Select 1.IF from the service Menu.4. Select 3.L.V LEVEL by pressing the 3 key on the remote control.5. Turn to other channels and make sure that there are no irregularities. | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Item | Measuring instrument | Test point | Adjustment part | Description |
|---------------------------------|----------------------|------------|---|---|
| Adjustment of VCO (SUB) | Remote control unit | | P. CW TRANSF. (T103) P.L-VL CW TRIM C (C122) [In P&P PWB] | <ul style="list-style-type: none"> Do not make any adjustment unless the adjustment is out of way and you cannot get correct PICTURE. <ol style="list-style-type: none"> Select 1.IF from the SERVICE MENU. Press 1 key and select 1.VCO. Press OK key and select " VCO (CW) = SUB ". Select a receivable broadcast channel with the CHANNEL key. Turn the core of P. CW TRANSF. until the colour of the characters TOO HIGH displayed on the screen changes from blue to <u>Yellow</u>. (Step 1) Turn the core of P. CW TRANSF. until the colour of the characters TOO LOW changes from blue to <u>Yellow</u>. (Step 2) Then slowly turn back the core of P. CW TRANSF. until the colour of the characters JUST REFERENCE changes from blue to <u>Yellow</u>. (Step 3) In the district SECAM L broadcast channel with the CHANNEL key and adjust the P.L-VL CW TRIM. C in same manner as for above step. And necessary, readjust P. CW. TRANSF. Press the INFORMATION key three times to return to normal screen. Perform CHANNEL PRESET again, and make sure that each broadcast is being received properly. |
| Adjustment of DELAY POINT (SUB) | Remote control unit | | NOISE VR (R137) | <ol style="list-style-type: none"> Set to 2 screen mode. Receive black and white signal on the right screen. Adjust the NOISE VR (R137) to eliminate noise from the right screen. |

VSM PRESET SETTING

| Item | Measuring instrument | Test point | Adjustment part | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------|------------|--|---|--|------|---------|------|----------------------------|----|----|----|---------------------------|-----|-----|----|----------------------------|----|----|----|---------------------------|----|----|----|-------------------------|----|----|----|-----------------------------|----|----|-----|-----------------------------|-----|----|----|-----------------------------|----|----|----|--------------------------|----|----|---|----------------------------|
| Setting of VSM PRESET ADJUST | Remote control unit | | 1. BRIGHT 2. CONT. 3. COLOUR 4. SHARP 5. HUE 6. R DRIVE 7. G DRIVE 8. B DRIVE 9. BASS 10. TREBLE | 1. Select COOL with the MENU key of the remote control unit. 2. Select 5.VSM PRESET from the SERVICE MENU. 3. Adjust the FUNCTION UP/DOWN and -/+ key to bring the set values of 1.BRIGHT ~ 10.TREBLE to the values shown in the table. 4. Press the MENU key and memorize the set value. 5. Respectively select the VSM PRESET mode for REGULAR and WARM, and make similar adjustment as in 3 above. 6. Press the MENU key and memorize the set value. * Refer to OPERATING INSTRUCTIONS for the PICTURE MODE. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | <table><tr><th><div>VSM preset mode</div><div>Setting item</div></th><th>COOL</th><th>REGULAR</th><th>WARM</th></tr><tr><td>1. BRIGHT SETTING VALUE</td><td>+0</td><td>+0</td><td>+0</td></tr><tr><td>2. CONT. SETTING VALUE</td><td>+13</td><td>+10</td><td>+2</td></tr><tr><td>3. COLOUR SETTING VALUE</td><td>+2</td><td>+0</td><td>-2</td></tr><tr><td>4. SHARP SETTING VALUE</td><td>+0</td><td>+0</td><td>-2</td></tr><tr><td>5. HUE SETTING VALUE</td><td>+0</td><td>+0</td><td>+0</td></tr><tr><td>6. R DRIVE SETTING VALUE</td><td>-5</td><td>+0</td><td>+14</td></tr><tr><td>7. G DRIVE SETTING VALUE</td><td>-11</td><td>+0</td><td>+5</td></tr><tr><td>8. B DRIVE SETTING VALUE</td><td>+0</td><td>+0</td><td>-6</td></tr><tr><td>9. BASS SETTING VALUE</td><td>+0</td><td>+0</td><td>0</td></tr><tr><td>10.TREBLE SETTING VALUE</td><td>+0</td><td>+0</td><td>0</td></tr></table> <p>SETTING VALUES OF VSM PRESET</p> | | <div>VSM preset mode</div> <div>Setting item</div> | COOL | REGULAR | WARM | 1. BRIGHT SETTING VALUE | +0 | +0 | +0 | 2. CONT. SETTING VALUE | +13 | +10 | +2 | 3. COLOUR SETTING VALUE | +2 | +0 | -2 | 4. SHARP SETTING VALUE | +0 | +0 | -2 | 5. HUE SETTING VALUE | +0 | +0 | +0 | 6. R DRIVE SETTING VALUE | -5 | +0 | +14 | 7. G DRIVE SETTING VALUE | -11 | +0 | +5 | 8. B DRIVE SETTING VALUE | +0 | +0 | -6 | 9. BASS SETTING VALUE | +0 | +0 | 0 | 10.TREBLE SETTING VALUE |
| <div>VSM preset mode</div> <div>Setting item</div> | COOL | REGULAR | WARM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. BRIGHT SETTING VALUE | +0 | +0 | +0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. CONT. SETTING VALUE | +13 | +10 | +2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. COLOUR SETTING VALUE | +2 | +0 | -2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. SHARP SETTING VALUE | +0 | +0 | -2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. HUE SETTING VALUE | +0 | +0 | +0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. R DRIVE SETTING VALUE | -5 | +0 | +14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. G DRIVE SETTING VALUE | -11 | +0 | +5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. B DRIVE SETTING VALUE | +0 | +0 | -6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9. BASS SETTING VALUE | +0 | +0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10.TREBLE SETTING VALUE | +0 | +0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

VIDEO/CHROMA CIRCUIT ADJUSTMENT

The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values.
The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

| Setting Item (Adjustment Item) | Initial setting value |
|------------------------------------|-----------------------|
| 1.RGB BLK | _____ |
| 2.R.DRIVE | +12 |
| 3.G.DRIVE | +2 |
| 4.B.DRIVE | +0 |
| 5.R.LEVEL | +0 |
| 6.G.LEVEL | +0 |
| 7.B.LEVEL | +0 |
| 8.BRIGHT | -10 |
| 9.CONTRAST | -5 |

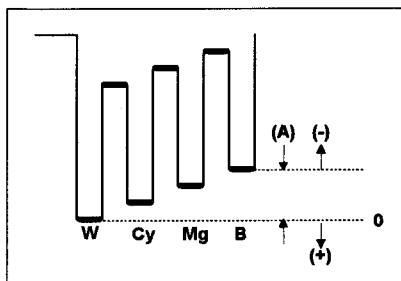
| Colour system Setting item | Initial setting value | |
|-------------------------------|-----------------------|------------------------|
| | PAL/ SECAM | NTSC 3.58 NTSC 4.43 |
| 10.COLOUR | -4/0 | 0 |
| 11.HUE | _____ | 0 |
| 12.PEAK DRIVE | +5 | _____ |
| 13.GAMMA | -21 | _____ |
| 14.VCOF | +0 | _____ |
| 15.RELC | +0 | _____ |
| | | |
| | | |
| | | |

| Item | Measuring instrument | Test point | Adjustment part | Description |
|---|---|------------|---|--|
| Adjustment of WHITE BALANCE (MAIN) | Signal generator Remote control unit | | 2.R DRIVE 3.G RIVE 5.R LEVEL 6.G LEVEL 7.B LEVEL | <ul style="list-style-type: none"> Set the PICTURE MODE to COOL. <ol style="list-style-type: none"> Receive a black and white signal(colour off). Select 2. V/C from the SERVICE MENU. Modify 2. R DRIVE and 3.G DRIVE data to adjust the white balance (high light) Modify 5. R LEVEL, 6. G LEVEL and 7. B LEVEL data to adjust the white balance of low light. Components. Press the MENU key and memorize the set value. |
| Adjustment of BRIGHTNESS AND WHITE BALANCE IN PIP | Signal generator Remote control unit | | 1.MAIN BRIGHT 2.MAIN R-Y 3.MAIN B-Y 4.SUB BRIGHT 5.SUB R-Y 6.SUB B-Y | <ol style="list-style-type: none"> Receive a black and white signal(colour off). Select 7.PIP from the SERVICE MENU. Select 1.MAIN BRIGHT. So small picture appears in the big picture. Adjust brightness of small picture to equal brightness of big picture by 1.MAIN BRIGHT. Select 2.MAIN R-Y and 3.MAIN B-Y. And adjust low-light of small picture to equal low-light of big picture Enter 4.SUB BRIGHT. It changes to the 2 screen mode. Adjust brightness of right picture to equal brightness of left picture. Select 5.SUB R-Y and 6.SUB B-Y. And adjust low-light of right picture to equal low-light of left picture 7.V-CENTRE should be "-1" at 50Hz , "+1" at 60Hz. 8.H-CENTRE should be 0. Press the MENU key and memorize the set value. |

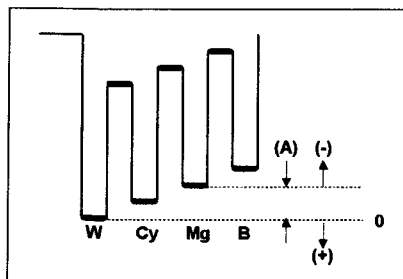
| Item | Measuring instrument | Test point | Adjustment part | Description |
|--------------------------|----------------------|------------|-----------------|--|
| Adjustment of SUB BRIGHT | Remote control unit | | 8.BRIGHT | <ol style="list-style-type: none"> 1. Receive any broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 8.BRIGHT with the FUNCTION UP/DOWN key. 4. Set the initial setting value with the FUNCTION +/- key. 5. If the brightness is not the best with the initial setting value, make fine adjustment until you get the best brightness. 6. Press the MENU key and memorize the set value. |
| Adjustment of SUB CONT. | Remote control unit | | 9.CONT. | <ol style="list-style-type: none"> 1. Receive any broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 9.CONT with the FUNCTION UP/DOWN key. 4. Set the initial setting value with the FUNCTION - or + key. 5. If the contrast is not the best with the initial setting value, make fine adjustment until you get the best contrast. 6. Press the MENU key and memorize the set value. |

| Item | Measuring instrument | Test point | Adjustment part | Description |
|----------------------------|----------------------|------------|----------------------|---|
| Adjustment of SUB COLOUR I | Remote control unit | | 10.COLOUR (PAL~NTSC) | [Method of adjustment without using measuring instrument] |
| | | | PAL COLOUR | (PAL COLOUR) 1. Receive PAL broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 10.COLOUR with the FUNCTION UP/DOWN key. 4. Set the initial setting value for PAL COLOUR with the FUNCTION - or + key. 5. If the colour is not the best with the initial set value, make fine adjustment until you get the best colour. 6. Press the MENU key and memorize the set value. |
| | | | SECAM COLOUR | (SECAM COLOUR) 1. Receive a SECAM broadcast. Make fine adjustment of SECAM COLOUR in the same manner as for above. |
| | | | NTSC COLOUR | (NTSC 3.58 COLOUR) 1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal from the EXT terminal. 2. Make similar fine adjustment of NTSC 3.58 COLOUR in the same manner as for above. (NTSC 4.43 COLOUR) 1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values. |

| Item | Measuring instrument | Test point | Adjustment part | Description |
|-----------------------------|---|------------------------------------|----------------------|--|
| Adjustment of SUB COLOUR II | Signal generator Oscilloscope Remote control unit | TP-47B TP-E [CRT SOCKET PWB] | 10.COLOUR (PAL~NTSC) | [Method of adjustment using measuring instrument] |
| | | | PAL COLOUR | (PAL COLOUR) 1. Receive a PAL full field colour bar signal(75% white). 2. Select 2.V/C from the SERVICE MENU. 3. Select 5.COLOUR with the FUNCTION UP/DOWN key. 4. Set the initial setting value of PAL COLOUR with the FUNCTION - or + key. 5. Connect the oscilloscope between TP-47B and TP-E 6. Adjust PAL COLOUR and bring the value of (A) in the illustration to 8V (voltage difference between white (w) and blue (B)). 7. Press the MENU key and memorize the setting value. |
| | | | SECAM COLOUR | (SECAM COLOUR) 1. Receive a SECAM full field colour bar signal(75% white). 2. Set the initial setting value of SECAM COLOUR with the FUNCTION -/+ key. 3. Adjust SECAM COLOUR and bring the value of (A) of the illustration to 6V. 4. Press the MENU key and memorize the setting value. |
| | | | NTSC COLOUR | (NTSC 3.58 COLOUR) 1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal. 2. Set the initial setting value of NTSC 3.58 COLOUR with the FUNCTION -/+ key. 3. Adjust NTSC 3.58 COLOUR and bring the value of (A) of the illustration to 2V(W~B). 4. Press the MENU key and memorize the setting value. (NTSC 4.43 COLOUR) 1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values. |



| Item | Measuring instrument | Test point | Adjustment part | Description |
|---------------------------|---|---------------------------------------|-----------------|--|
| Adjustment of SUB TINT I | Remote control unit | | 11.HUE | [Method of adjustment without using measuring instrument] |
| | | | NTSC 3.58 TINT | [NTSC 3.58 TINT] 1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal. 2. Select 2.V/C from the SERVICE MENU. 3. Select 11.HUE with the FUNCTION UP/DOWN key. 4. Set the initial setting value of NTSC 3.58 TINT with the FUNCTION +/- key. 5. If you cannot get the best tint with the initial setting value, make fine adjustment until you get the best tint. 6. Press the MENU key and memorize the set value. |
| | | | NTSC 4.43 TINT | [NTSC 4.43 TINT] 1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values. |
| Adjustment of SUB TINT II | Signal generator Oscilloscope Remote control unit | TP-47B TP-E() [CRT SOCKET PWB] | 11.HUE ≠ | [Method of adjustment using measuring instrument] |
| | | | NTSC 3.58 TINT | [NTSC 3.58 TINT] 1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal. 2. Select 2.V/C from the SERVICE MENU. 3. Select 11.HUE with the FUNCTION UP/DOWN key. 4. Set the initial setting value of NTSC 3.58 TINT with the FUNCTION - or + key. 5. Connect the oscilloscope between TP-47B and TP-E 6. Adjust NTSC 3.58 TINT to bring the value of (A) in the illustration to 0V (voltage difference between white (W) and magenta(Mg)). 7. Press the MENU key and memorize the setting value |
| | | | NTSC 4.43 TINT | [NTSC 4.43 TINT] 1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values. |

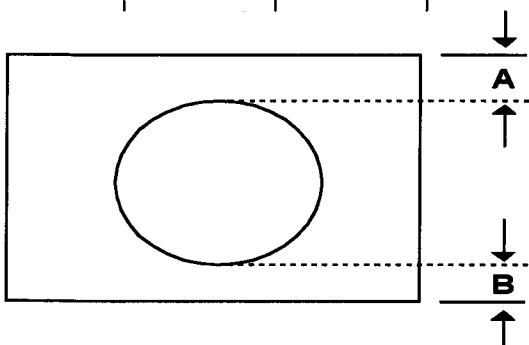
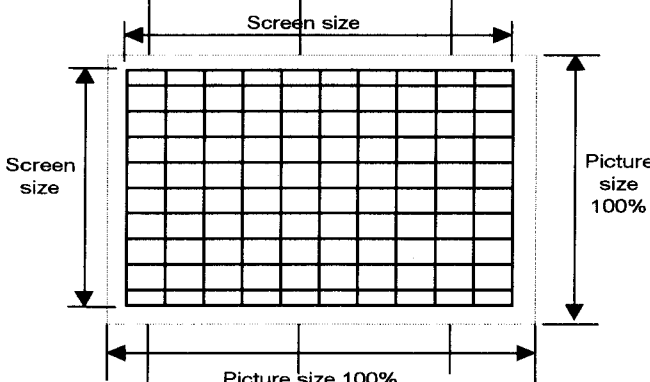


DEFLECTION CIRCUIT ADJUSTMENT

There are 3 modes of the adjustment (1) 50Hz mode (①PANORAMIC ②FULL ③SUBTITLE), (2) 60Hz mode (each aspect mode) depending upon the kind of signals (vertical frequency 50Hz / 60Hz).

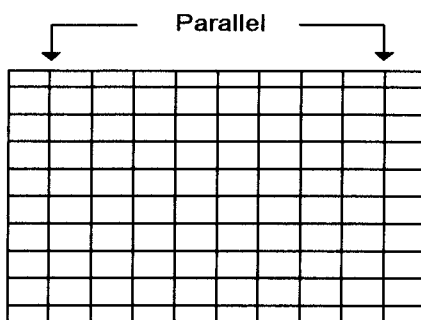
- When the 50Hz PANORAMIC mode has been established, the setting of other modes will be done automatically. However, if the picture quality has not been optimized, adjust each mode again, respectively.
- The adjustment using the remote control unit is made on the basis of the initial setting values.
- The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- Regular and Zoom switching is conducted not by the Deflection circuit, but by the 100 Hz PWB. Therefore, the deflection system cannot be adjusted in these modes.

| Setting item | Adjustment name | Initial setting value | | | | | |
|--------------|-----------------------------------|-----------------------|------|-----------|------|----------|------|
| | | FULL | | PANORAMIC | | SUBTITLE | |
| | | 50Hz | 60Hz | 50Hz | 60Hz | 50Hz | 60Hz |
| 1.V- SHIFT | Vertical center | 3 | 0 | 0 | 0 | 0 | 0 |
| 2.V- SLOPE | Vertical def. Start position | 14 | -7 | 2 | -9 | 0 | 2 |
| 3.V-SIZE | Vertical height | 33 | 2 | -1 | -1 | 20 | -1 |
| 4.H-CENT | Horizontal center | 23 | -3 | 0 | -1 | 0 | -2 |
| 5.H-SIZE | Horizontal width | 23 | -1 | 8 | -1 | -1 | 0 |
| 6.EW-PIN | Side pin correction | 42 | 0 | -3 | 0 | 3 | 0 |
| 7.EW-COR | Side pin four corner correction | 36 | 0 | -10 | -8 | -7 | 0 |
| 8.TRAPEZ | Trapezoidal distortion correction | 3 | 0 | -1 | -1 | 0 | 1 |
| 9.V-S.CR | Vertical height correction | 8 | 0 | 12 | 0 | 5 | 0 |
| 10.EHT-COMP | Size Regulation | 30 | 0 | 0 | 0 | 0 | 0 |
| 11.CLAMP | CLAMP Position | 0 | 0 | 0 | 0 | 0 | 0 |

| Item | Measuring instrument | Test point | Adjustment part | Description | | | | | | | | | | | | |
|--|---|------------|------------------------|---|------|-----------|------------------------|------------|-----|-----|-----|---------------|-----|-----|-----|--|
| Adjustment of V-SHIFT and V-SLOPE | Signal generator Remote control unit | | 1.V- SHIFT | [FULL mode] 1. Receive a circle pattern signal of vertical frequency 50Hz. 2. Select 4.DEF from the SERVICE MENU. 3. Select 1.V-SHIFT with the FUNCTION UP/DOWN key. 4. Adjust V-SHIFT to make A = B. 5. IF it is not enough to adjust the "V=SHIFT", choose "2.V=SLOPE" and adjust to make A = B. 6. Press the MENU key and memorize the set value. | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | |
| Adjustment of V-SIZE | | | 3.V. SIZE | 7. Receive a cross-hatch signal. 8. Select 3.V-SIZE and set the initial setting value. 9. Adjust V-SIZE and make sure that the vertical screen size of the picture size is in the bellow table. 10.Press the MENU key and memorize the set value. 11.Input a NTSC VIDEO signal from the EXT terminal, and make sure that the vertical screen size of the RANORAMIC mode is in the table below. 12.Press the MENU key and memorize the set value. | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | |
| <table><tr><th>MODE</th><th>FULL</th><th>PANORAMIC</th><th>16:9 ZOOM SUB TITLE</th></tr><tr><td>SCREEN TOP</td><td>92%</td><td>87%</td><td>70%</td></tr><tr><td>SCREEN BOTTOM</td><td>92%</td><td>87%</td><td>83%</td></tr></table> <p>[SCREEN SIZE]</p> | | | | MODE | FULL | PANORAMIC | 16:9 ZOOM SUB TITLE | SCREEN TOP | 92% | 87% | 70% | SCREEN BOTTOM | 92% | 87% | 83% | |
| MODE | FULL | PANORAMIC | 16:9 ZOOM SUB TITLE | | | | | | | | | | | | | |
| SCREEN TOP | 92% | 87% | 70% | | | | | | | | | | | | | |
| SCREEN BOTTOM | 92% | 87% | 83% | | | | | | | | | | | | | |

| Item | Measuring instrument | Test point | Adjustment part | Description |
|--|----------------------|------------|-----------------|--|
| Adjustment of H.CENTER | | | 4.H-CENT. | 13.Receive a circle pattern signal. 14.Select 4.H-CENT and set the initial setting value. 15.Adjust H-CENT to make C=D. 16.Press the MENU key and memorize the set value. |
| <div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div></div><div></div></div><div><div></div><div></div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> 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| Item | Measuring instrument | Test point | Adjustment part | Description |
|----------------------|----------------------|------------|-----------------|--|
| Adjustment of EW-COR | | | 7.EW-COR | <p>★ No alignment, but adjust this mode if result of no alignment is too bad.</p> <p>26. Select 7.EW-COR and set the initial setting value.</p> <p>27. Adjust EW-COR and make the vertical lines at the four corners of the screen straight.</p> <p>28. Press the MENU key and memorize the set value.</p> |
| Adjustment of TRAPEZ | | | 8.TRAPEZ | <p>[50Hz PANORAMIC mode]</p> <p>29. Receive a cross-hatch signal of vertical frequency 50Hz.</p> <p>30. Select 4.DEF from the SERVICE MENU.</p> <p>31. Select 8.TRAPEZ with the FUNCTION UP/DOWN key.</p> <p>32. Set the initial setting value of TRAPEZ with the FUNCTION - or + key.</p> <p>33. Adjust TRAPEZ and bring the VERTICAL lines at the right and left edges of the screen parallel .</p> <p>34. Press the MENU key and memorize the set value.</p> |
| Adjustment of V-S.CR | | | 9.V-S.CR | <p>★ No alignment, but adjust this mode if result of no alignment is too bad.</p> <p>35. Select 9.V-S.CR and set the initial setting value.</p> <p>36. Adjust each item to get exact square of cross-hatch pattern.</p> <p>37. Press the MENU key and memorize the set value.</p> |
| | | | | <p>At first the adjustment in 50Hz-PANORAMIC mode should be done, then the data for the other zoom mode is corrected in the respective value at the same time. And confirm the deflection adjustment initial setting value in 60Hz(NTSC EXT mode) PANORAMIC mode. If the adjustment in 50Hz each zoom mode has been done and stored, the data for the same aspect modes in 60Hz is corrected in the respective value. Only the data for the other aspect mode in 60Hz is corrected for itself.</p> |

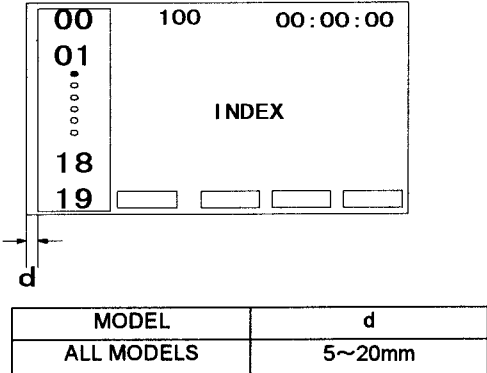
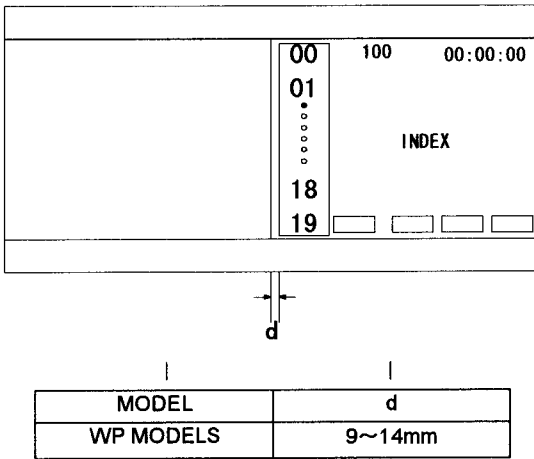


AUDIO CIRCUIT ADJUSTMENT

3. AUDIO / OSD

| Setting item | Variable range | fixed value |
|---------------------------------------|----------------|-------------|
| 1. CONC LIMIT(<i>Do not adjust</i>) | 00H~FFH | 0AH |
| 2. A2 ID THR(<i>Do not adjust</i>) | 00H~FFH | 19H |

OSD horizontal position

| Item | Test point | Adjustment part | Description |
|--|------------|-----------------|--|
| JVC LOGO H | | 3.JVC LOGO H | <ol style="list-style-type: none"> 1. Select 3.AUDIO / OSD from SERVICE MENU. 2. Select 3.JVC LOGO H with the FUNCTION +/- key. 3. Confirm that JVC LOGO H=00H 4. Press the MENU Key, and memorize the set values. |
| TEXT MONO H | | 4.TEXT MONO H | <ol style="list-style-type: none"> 1. Select 3.AUDIO / OSD from SERVICE MENU. 2. Select 4.TEXT MONO H with the FUNCTION +/- key. 3. Push text key to get a picture of "TEXT-MONO H". 4. Push "SUBPAGE" key. It gets a picture as shown left. 5. Adjust the value of the distance "d" as shown left with the FUNCTION UP/DOWN key. Push "SUBPAGE" key to check adjustment every adjust. 6. Press the MENU Key, and memorize the set values. |
|  | | | |
| TEXT MIX H | | 5.TEXT MIX H | <ol style="list-style-type: none"> 1. Select 3.AUDIO / OSD from SERVICE MENU. 2. Select 5.TEXT MIX H with the FUNCTION +/- key. 3. Push text key to get a picture of "TEXT&PICTURE". 4. Push "SUBPAGE" key. It gets a picture as shown left. 5. Adjust the value of the distance "d" as shown left with the FUNCTION UP/DOWN key. Push "SUBPAGE" key to check adjustment every adjust. 6. Press the MENU Key, and memorize the set values. |
|  | | | |

AV-32WP2EN
AV-32WP2EP

PARTS LIST

CAUTION

- The parts identified by the \triangle symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety .
 - The parts not indicated in this Parts List and those which are filled with lines — in the Parts No. columns will not be supplied .
 - P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied .
 - As a rule, the resistors and capacitors which are indicated as shown in “HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS” are not shown in the list of the parts on the board .
- When ordering the service parts, confirm the resistance/rated power, capacitance/rated voltage, and type of the parts, then order by the part No. indicated according to “HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS”

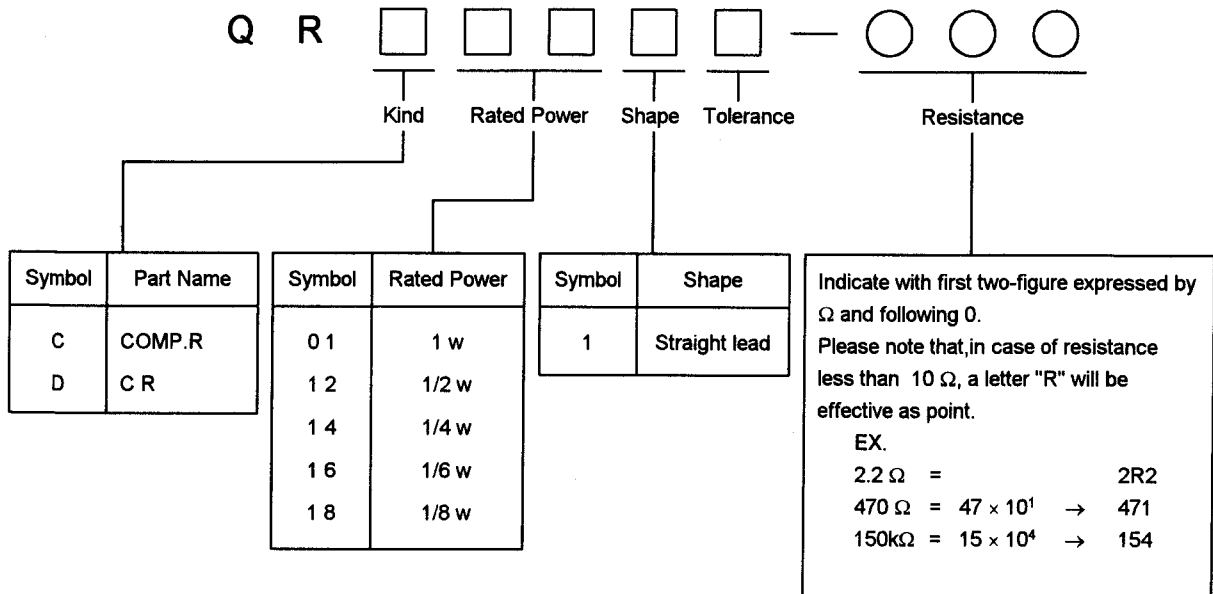
ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

| RESISTORS | | CAPACITORS | |
|-----------|--|-----------------|---|
| C R | Carbon Resistor | C CAP. | Ceramic Capacitor |
| F R | Fusible Resistor | E CAP. | Electrolytic Capacitor |
| P R | Plate Resistor | M CAP. | Mylar Capacitor |
| V R | Variable Resistor | HV CAP. | High Voltage Capacitor |
| HV R | High Voltage Resistor | MF CAP. | Metalized Film Capacitor |
| MF R | Metal Film Resistor | MM CAP. | Metalized Mylar Capacitor |
| MG R | Metal Glazed Resistor | MP CAP. | Metalized Polystyrol Capacitor |
| MP R | Metal Plate Resistor | PP CAP. | Polypropylene Capacitor |
| OM R | Metal Oxide Film Resistor | PS CAP. | Polystyrol Capacitor |
| CMF R | Coating Metal Film Resistor | TF CAP. | Thin Film Capacitor |
| UNF R | Non-Flammable Resistor | MPP CAP. | Metalized Polypropylene Capacitor |
| CH V R | Chip Variable Resistor | TAN. CAP. | Tantalum Capacitor |
| CH MG R | Chip Metal Glazed Resistor | CH C CAP. | Chip Ceramic Capacitor |
| COMP. R | Composition Resistor | BP E CAP. | Bi-Polar Electrolytic Capacitor |
| LPTC R | Linear Positive Temperature Coefficient Resistor | CH AL E CAP. | Chip Aluminum Electrolytic Capacitor |
| | | CH AL BP CAP. | Chip Aluminum Bi-Polar Capacitor |
| | | CH TAN. E CAP. | Chip Tantalum Electrolytic Capacitor |
| | | CH AL BP E CAP. | Chip Tantalum Bi-Polar Electrolytic Capacitor |

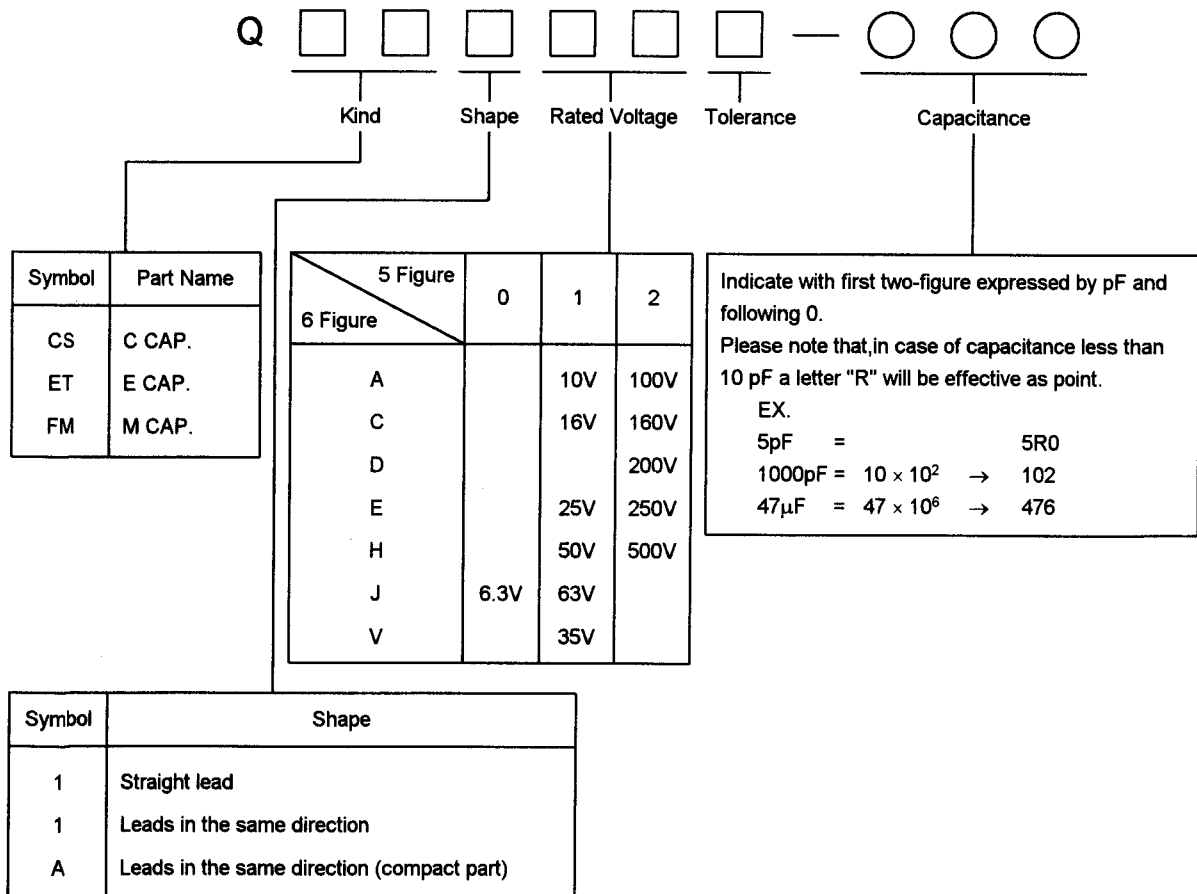
| TOLERANCES | | | | | | | | | |
|------------|-----------|-----------|------------|------------|------------|----------------|----------------|----------------|----------------|
| F | G | J | K | M | N | R | H | Z | P |
| $\pm 1\%$ | $\pm 2\%$ | $\pm 5\%$ | $\pm 10\%$ | $\pm 20\%$ | $\pm 30\%$ | + 30% - 10% | + 50% - 10% | + 80% - 20% | + 100% - 0% |

HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS

■ RESISTOR



■ CAPACITOR



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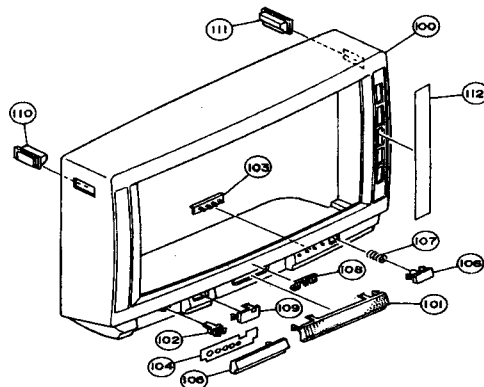
USING P.W. BOARD & REMOTE CONTROL UNIT

| P.W.B ASS'Y \ Model | AV-32WP2EN(A) | AV-32WP2EP(A) |
|--------------------------|---------------|---------------|
| MAIN P.W.B | SMB-1001B-U2 | ← |
| POWER DEF P.W.B | SMB-2001B-U2 | ← |
| CRT SOCKET P.W.B | SMB-3001B-U2 | ← |
| AUDIO P.W.B | SMB-6001B-U2 | ← |
| FRONT CONTROL P.W.B | SMB-8001B-U2 | ← |
| SUB TEXT P.W.B | SMB-1111B-U2 | ← |
| DOLBY P.W.B | SMB0D002B-U2 | ← |
| P&P P.W.B | SMB0P001B-U2 | SMB0P701B-U2 |
| 100Hz P.W.B | SMB0Z001B-U2 | ← |
| AV TERMINAL P.W.B | SMB0J001B-U2 | ← |
| IF P.W.B | SMB0F701B-U2 | ← |
| AUTO ASPECT MODULE P.W.B | SJF0W001A(U) | ← |
| REMOTE CONTROL UNIT | RM-C791-1E | ← |

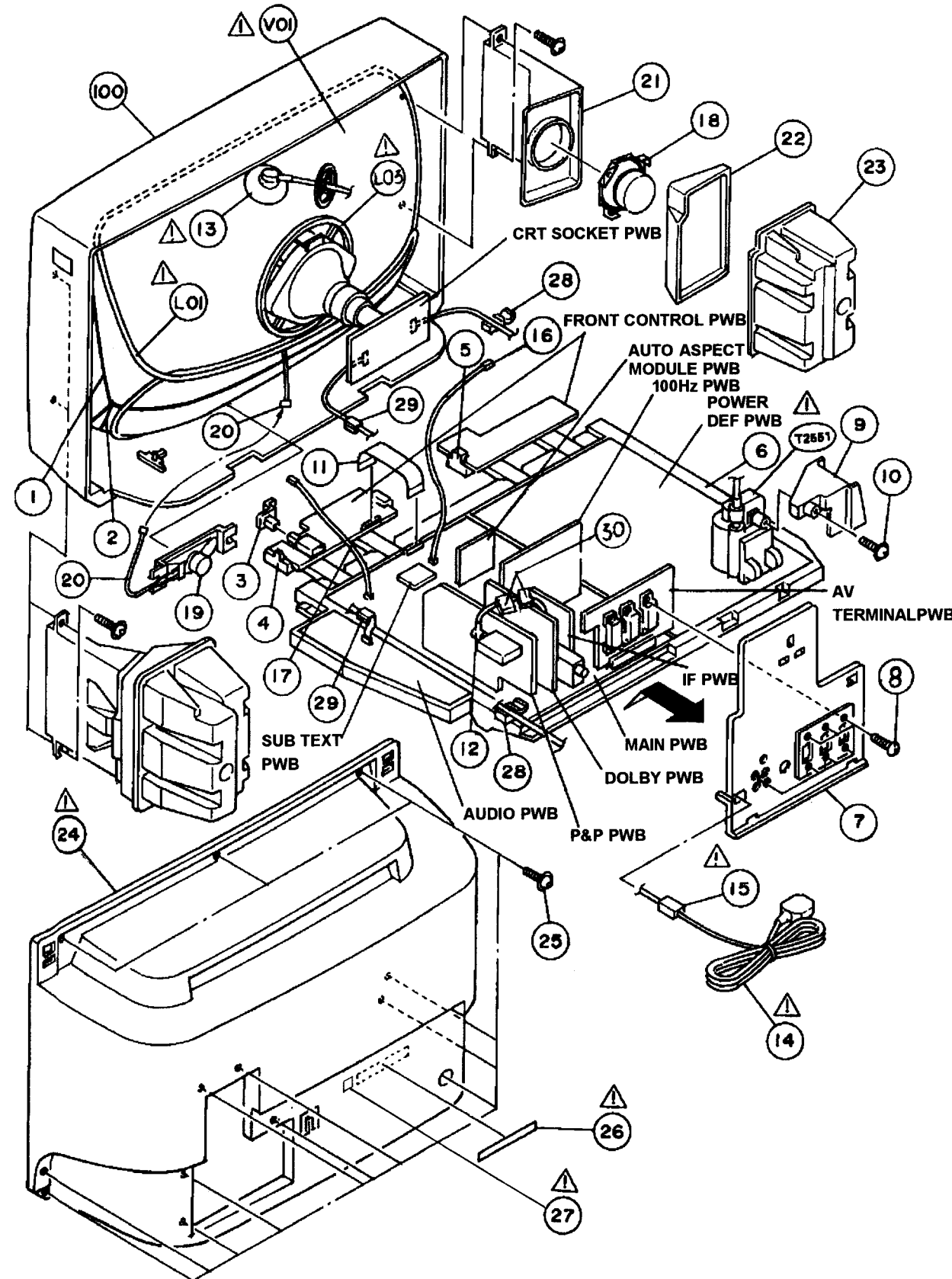
EXPLODED VIEW PARTS LIST

| △ Ref. No. | Part No. | Part Name | Description | Local |
|------------|----------------|------------------|---------------------|-------|
| △ V01 | W76ESF031X44 | ITC TUBE (C) | V01 | * |
| △ L01 | CELD062-001J2 | DEGAUSSING COIL | L01 | * |
| L03 | CELD904-001 | ROTATION COIL | L03 | * |
| △ T2551 | CETH021-00AJ1 | HVT (SERVICE) | T2551 | * |
| 1 | CHGB0029-0C | BRAIDED ASSY | | * |
| 2 | CHGB0017-0B | BRAIDED SUB ASSY | × 2 | * |
| 3 | CM36311-001 | KNOB CAP | | * |
| 4 | CM12925-001-E | CONTROL BASE | | * |
| 5 | CM12925-002-E | CONTROL BASE | | * |
| 6 | CM12923-A01-E | CHASSIS BASE | | * |
| 7 | CM12924-C01-E | AV TERM BASE | | * |
| 8 | SBSB3012M | TAPPING SCREW | × 7 | * |
| 9 | CM23076-B01-E | TRANSF. HOLDER | | * |
| 10 | GBSA4016N | TAPPING SCREW | × 3 | * |
| 11 | CHFB125-12BD | FFC WIRE | | * |
| 12 | CHGY0031-0B-YS | ANTENNA CABLE | | * |
| △ 13 | CE41950-001J1 | ANODE CABLE ASSY | | * |
| △ 14 | AEEMP001-185 | POWER CORD | | * |
| △ 15 | CM46618-A01-E | POWER CORD CLAMP | | * |
| 16 | CHGS0075-AA | S. P WIRE ASSY | | * |
| 17 | CHGS0076-0A | S. P WIRE ASSY | | * |
| 18 | CEBSF10P-05KJ6 | SPEAKER | × 2 SP01/02 | * |
| 19 | CEBSF10D-04KJ6 | SPEAKER | | * |
| 20 | CHGS0091-0A | S. P WIRE ASSY | | * |
| 21 | 2528MXSP-SZE-E | DOME SPEAKER | × 2 | * |
| 22 | CM12921-001-E | DOME ADAPTER | × 2 | * |
| 23 | CM12922-001-E | DOME BOX | × 2 | * |
| △ 24 | CM12737-003-E | REAR COVER | | * |
| 25 | GBSA4016N | TAPPING SCREW | × 13 | * |
| △ 26 | LC20094-001A-U | RATING LABEL | AV-32EP2EP (A) | * |
| △ 26 | LC20093-001A-U | RATING LABEL | AV-32WP2EN (A) | * |
| △ 27 | LC20092-001A-U | RATING LABEL | AV-32WP2EN (A) ONLY | * |
| 28 | QQR0778-001 | CORE FILTER | × 2 | * |
| 29 | QQR0490-001 | NOISE FILTER | × 2 | * |
| 30 | CE41355-00B | CORE ASSY | × 2 | * |
| 100 | CM12587-A0N-E | FRONT CABINET AS | Include NO. 101~112 | * |
| 101 | CM12928-D01-E | SPEAKER GRILL | | * |
| 102 | CM48229-00A | DOOR LATCH | | * |
| 103 | CM36223-002-H | L. E. D. LENS | | * |
| 104 | CM36857-001 | OPERATION SHEET | | * |
| 105 | CM23131-A01 | DOOR | | * |
| 106 | CM36225-010 | POWER KNOB | (SERVICE) | * |
| 107 | CM35235-003-H | SPRING | | * |
| 108 | CM48125-001 | JVC MARK | | * |
| 109 | CM48076-002-H | C. D. S. WINDOW | | * |
| 110 | CM35865-00U | INSULATOR ASSY L | (SERVICE) | * |
| 111 | CM35865-00V | INSULATOR ASSY R | (SERVICE) | * |
| 112 | CM36172-00A-S | SPEAKER NET | × 2 | * |

EXPLODED VIEW



EXPLODED VIEW



PRINTED WIRING BOARD PARTS LIST

MAIN PW BOARD ASS'Y (SMB-1001B-U2)

| Symbol No. | Part No. | Part Name | Description | Local |
|------------------|---------------|-----------|----------------------|-------|
| RESISTOR | | | | |
| R1001 | QRD12CJ-474SX | C R | 470k Ω 1/2W J | * |
| R1206 | QRG019J-101S | OM R | 100 Ω 1W J | * |
| R1229 | QRD123J-181SX | C R | 180 Ω 1/2W J | * |
| R1231 | QRG019J-101S | OM R | 100 Ω 1W J | * |
| R1748 | QRB069J-103 | NET. R | | * |
| R1798-99 | QRD12CJ-820SX | C R | 82 Ω 1/2W J | * |
| R1809 | QRD12CJ-2R2SX | C R | 2.2 Ω 1/2W J | * |
| CAPACITOR | | | | |
| C1001 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1002 | QETC1HM-107Z | E CAP. | 100 μ F 50V M | * |
| C1003 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1004 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C1005 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1006 | QETN1CM-227Z | E CAP. | 220 μ F 16V M | * |
| C1008 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C1011 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C1012 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1201 | QETN1CM-227Z | E CAP. | 220 μ F 16V M | * |
| C1203-04 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C1205-06 | QETN1HM-335Z | E CAP. | 3.3 μ F 50V M | * |
| C1207 | QETN1CM-227Z | E CAP. | 220 μ F 16V M | * |
| C1209 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C1210 | QETN1CM-477Z | E CAP. | 470 μ F 16V M | * |
| C1212-13 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C1214-15 | QETN1HM-335Z | E CAP. | 3.3 μ F 50V M | * |
| C1216-17 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C1218-19 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C1220 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C1221-22 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C1223-24 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C1231-32 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C1301 | QETN1CM-227Z | E CAP. | 220 μ F 16V M | * |
| C1302 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1304 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C1305 | QETN1HM-226Z | E CAP. | 22 μ F 50V M | * |
| C1306 | QFLC1HJ-223MZ | M CAP. | 0.022 μ F 50V J | * |
| C1307-08 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C1311-13 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1315 | QFV71HJ-474MZ | TF CAP. | 0.47 μ F 50V J | * |
| C1316 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1317 | QFV71HJ-154MZ | TF CAP. | 0.15 μ F 50V J | * |
| C1318 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1320 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1321-22 | QCT25CH-120Z | C CAP. | 12 pF 50V J | * |
| C1323 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1325-26 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1327 | QETN1CM-227Z | E CAP. | 220 μ F 16V M | * |
| C1328-32 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1341 | QEN61HM-105Z | BP E CAP. | 1 μ F 50V M | * |
| C1348 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1350-52 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1353-55 | QFV71HJ-224MZ | TF CAP. | 0.22 μ F 50V J | * |
| C1357 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C1358 | QETN1HM-475Z | E CAP. | 4.7 μ F 50V M | * |
| C1359 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C1360 | QETN1HM-335Z | E CAP. | 3.3 μ F 50V M | * |
| C1363 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C1365 | QEZ0106-228R | E CAP. | 2200 μ H 10V M | * |
| C1367-69 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1375 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C1610-11 | QCT25CH-2R0Z | C CAP. | 2 pF 50V J | * |
| C1612 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C1615 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C1616 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |

| △ Symbol No. | Part No. | Part Name | Description | Local |
|--------------|---------------|--------------|---------------------|-------|
| CAPACITOR | | | | |
| C1617 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C1623-24 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C1625 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1626 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C1627 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C1629-30 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C1631 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C1632 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1633 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C1645 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C1646 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1647 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C1649 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C1660 | QFLC1HJ-333MZ | M CAP. | 0.033 μ F 50V J | * |
| C1703 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1704 | QETN1AM-107Z | E CAP. | 100 μ F 10V M | * |
| C1705-06 | QCT25CH-3R0Z | C CAP. | 3 pF 50V J | * |
| C1707 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1708 | QFLC1HJ-333MZ | M CAP. | 0.033 μ F 50V J | * |
| C1709 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1710 | QETN1EM-476Z | E CAP. | 47 μ F 25V M | * |
| C1711 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1712 | QFLC1HJ-333MZ | M CAP. | 0.033 μ F 50V J | * |
| C1713 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1714 | QETN1HM-474Z | E CAP. | 0.47 μ F 50V M | * |
| C1715 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C1716 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1717 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C1751 | QFLC1HJ-563MZ | M CAP. | 0.056 μ F 50V J | * |
| C1752 | QFV71HJ-224MZ | TF CAP. | 0.22 μ F 50V J | * |
| C1754 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1756-57 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1758 | QETN1AM-227Z | E CAP. | 220 μ F 10V M | * |
| C1759 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1760-61 | QCT25CH-150Z | C CAP. | 15 pF 50V J | * |
| C1762 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1763 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C1764 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1766-68 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1769-71 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C1772 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C1773 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C1776 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1780 | QFLC1HJ-104MZ | M CAP. | 0.1 μ F 50V J | * |
| C1781 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C1782 | QFLC1HJ-223MZ | M CAP. | 0.022 μ F 50V J | * |
| C1801 | QETN1EM-107Z | E CAP. | 100 μ F 25V M | * |
| C1802-03 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C1805 | QETN1EM-107Z | E CAP. | 100 μ F 25V M | * |
| C1806 | QEN61HM-106Z | BP E CAP. | 10 μ F 50V M | * |
| C1807 | QFV71HJ-124MZ | TF CAP. | 0.12 μ F 50V J | * |
| C1809-10 | QETN1CM-108Z | E CAP. | 1000 μ F 16V M | * |
| COIL | | | | |
| L1001-02 | CELP026-8R2Z | PEAKING COIL | 8.2 μ H | * |
| L1003 | CELP026-221Z | PEAKING COIL | 220 μ H | * |
| L1601 | CELP027-220Z | PEAKING COIL | 22 μ H | * |
| L1602 | CELP027-180Z | PEAKING COIL | 18 μ H | * |
| L1611-12 | CELC005-2R5J7 | CHOKE COIL | 2.5 μ H | * |
| L1701 | CELP026-4R7Z | PEAKING COIL | 4.7 μ H | * |
| L1702 | CELP026-8R2Z | PEAKING COIL | 8.2 μ H | * |
| L1752 | QRD161J-OR0Y | C R | 0 Ω 1/6W J | * |
| L1753 | CELP026-4R7Z | PEAKING COIL | 4.7 μ H | * |
| L1791-92 | CELP026-8R2Z | PEAKING COIL | 8.2 μ H | * |

| △ Symbol No. | Part No. | Part Name | Description | Local |
|--------------|-----------------|--------------------|-------------|-------|
| DIODE | | | | |
| D1201-11 | MTZJ13 (B)-T2 | ZENER DIODE | | * |
| D1212-13 | 1SS133-T2 | SI. DIODE | | * |
| D1214-15 | MTZJ13 (B)-T2 | ZENER DIODE | | * |
| D1343 | 1SS133-T2 | SI. DIODE | | * |
| D1345-48 | 1SS133-T2 | SI. DIODE | | * |
| D1349 | MTZJ6. 2 (B)-T2 | ZENER DIODE | | * |
| D1350-53 | 1SS133-T2 | SI. DIODE | | * |
| D1356 | 1SS146-T2 | SI. DIODE | | * |
| D1357-58 | 1SS133-T2 | SI. DIODE | | * |
| D1701-02 | 1SS133-T2 | SI. DIODE | | * |
| D1704 | 1SS146-T2 | SI. DIODE | | * |
| D1705 | 1SS133-T2 | SI. DIODE | | * |
| D1710-11 | 1SS133-T2 | SI. DIODE | | * |
| D1751-53 | 1SS133-T2 | SI. DIODE | | * |
| D1754-58 | MTZJ6. 2 (B)-T2 | ZENER DIODE | | * |
| D1801-02 | 1SS133-T2 | SI. DIODE | | * |
| D1803 | MTZJ6. 8 (A)-T2 | ZENER DIODE | | * |
| D1804 | 1SS133-T2 | SI. DIODE | | * |
| TRANSISTOR | | | | |
| Q1201-05 | 2PC1815 (YG)-T | SI. TRANSISTOR | | * |
| Q1206-07 | DTC323TS-T | DIGI. TRANSISTOR | | * |
| Q1208 | 2PA1015 (YG)-T | SI. TRANSISTOR | | * |
| Q1209 | 2PC1815 (YG)-T | SI. TRANSISTOR | | * |
| Q1211-12 | 2PA1015 (YG)-T | SI. TRANSISTOR | | * |
| Q1213-14 | 2PC1815 (YG)-T | SI. TRANSISTOR | | * |
| Q1215-16 | DTC323TS-T | DIGI. TRANSISTOR | | * |
| Q1217 | 2PA1015 (YG)-T | SI. TRANSISTOR | | * |
| Q1301 | 2PA1015 (YG)-T | SI. TRANSISTOR | | * |
| Q1302 | 2PC1815 (YG)-T | SI. TRANSISTOR | | * |
| Q1303-04 | 2PA1015 (YG)-T | SI. TRANSISTOR | | * |
| Q1342 | DTC144ES-T | DIGI. TRANSISTOR | | * |
| Q1343-44 | 2PC1815 (YG)-T | SI. TRANSISTOR | | * |
| Q1345 | DTC124ESA-T | DIGI. TRANSISTOR | | * |
| Q1346 | 2PC1815 (YG)-T | SI. TRANSISTOR | | * |
| Q1349 | 2PC1815 (YG)-T | SI. TRANSISTOR | | * |
| Q1610 | 2PA1015 (YG)-T | SI. TRANSISTOR | | * |
| Q1611 | DTC323TS-T | DIGI. TRANSISTOR | | * |
| Q1613 | 2PC1815 (YG)-T | SI. TRANSISTOR | | * |
| Q1701-04 | 2PC1815 (YG)-T | SI. TRANSISTOR | | * |
| Q1752 | 2PA1015 (YG)-T | SI. TRANSISTOR | | * |
| Q1753 | DTC124ES-T | DIGI. TRANSISTOR | | * |
| Q1791-94 | 2PC1815 (YG)-T | SI. TRANSISTOR | | * |
| Q1801 | 2PA1015 (YG)-T | SI. TRANSISTOR | | * |
| Q1802 | DTC323TS-T | DIGI. TRANSISTOR | | * |
| I C | | | | |
| IC1301 | CXA1545AS | I. C (MONO-ANA) | | |
| IC1303 | TDA9143 | I C | | |
| IC1304 | TDA4665 | I. C (MONO-ANA) | | * |
| IC1305 | TDA4780 | I. C (MONO-ANA) | | |
| IC1311 | AN77L05-Y | I. C (MONO-ANA) | | * |
| IC1601 | MSP3410B-PP-F7 | I. C (DIGI-OTHER) | | * |
| IC1701 | M37207EFSP | I. C. (MICRO-COMP) | | |
| IC1702 | L78LR05E-MA | I. C (MONO-ANA) | | * |
| IC1751 | SDA30C163 | I. C (MICRO-COMP) | | |
| IC1752 | M27C1001-10F1 | I. C (EP-ROM) | | |
| IC1753 | AT24C16-32WP2 | I. C (EP-ROM) | | * |
| IC1754 | SDA5275S | I. C (MICRO-PROC) | | |
| IC1755 | MSM514400C60ZS | I. C (D-RAM) | | |
| IC1756 | TC4053BP | I. C (DIGI-MOS) | | * |
| IC1757 | MN1280-Q | I. C (DIGI-MOS) | | * |
| IC1801 | TA8213K | I. C. | | |
| OTHERS | | | | |
| | CEMS009-064 | I. C. SOCKET | | |

| △ Symbol No. | Part No. | Part Name | Description | Local |
|--------------------|--------------|----------------|----------------|-------|
| O T H E R S | | | | |
| | CEMS007-008 | I. C. SOCKET | | |
| | CEMS006-068 | IC SOCKET | | |
| | CEMS007-032 | IC SOCKET | | |
| | CEMS007-008 | I. C. SOCKET | | |
| EF1001 | CE42142-103Z | EMI FILTER | | |
| EF1610-12 | CE42142-103Z | EMI FILTER | | |
| K1001-03 | CE41433-001Z | BEADS CORE | | * |
| K1005 | CE41492-001Z | CHOKE COIL | | |
| K1009-11 | CE41433-001Z | BEADS CORE | | * |
| K1602 | CE41433-001Z | BEADS CORE | | * |
| K1701-02 | CE41433-001Z | BEADS CORE | | * |
| MD1 | ----- | 100Hz PWB ASSY | (Refer to P41) | |
| MD2 | ----- | IF PWB ASSY | (Refer to P40) | |
| MD3 | ----- | SUB TEXT PWB | (As follows) | |
| TU1001 | CEEK481-A01 | TUNER | | * |
| UD1001 | CEGA010-001 | RF SPLITTER | | |
| X1311 | CE40749-001Z | CRYSTAL | | * |
| X1312 | CE40668-001Z | CRYSTAL | | * |
| X1610 | CE42546-001Z | CRYSTAL | | * |
| X1701 | CST8.00MTW | CER. RESONATOR | | * |
| X1751 | QAX0307-001 | CER. RESONATOR | | |
| X1752 | QAX0351-001Z | X TAL | | * |

SUB TEXT PW BOARD ASS'Y (SMB-1111B-U2)

This PW Board Ass'Y is included in the above MAIN PW Board Ass'Y.

| △ Symbol No. | Part No. | Part Name | Description | Local |
|----------------------------|----------------|----------------|--------------|-------|
| R E S I S T O R | | | | |
| R1348 | QRD161J-681Y | C R | 680 Ω 1/6W J | * |
| R1370 | QRD161J-820Y | C R | 82 Ω 1/6W J | * |
| R1371 | QRD161J-104Y | C R | 100kΩ 1/6W J | * |
| R1701 | QRD161J-683Y | C R | 68kΩ 1/6W J | * |
| R1702 | QRD161J-273Y | C R | 27kΩ 1/6W J | * |
| R1703 | QRD161J-102Y | C R | 1kΩ 1/6W J | * |
| R1704 | QRD161J-683Y | C R | 68kΩ 1/6W J | * |
| R1705 | QRD161J-273Y | C R | 27kΩ 1/6W J | * |
| R1706 | QRD161J-102Y | C R | 1kΩ 1/6W J | * |
| R1707 | QRD161J-683Y | C R | 68kΩ 1/6W J | * |
| R1708 | QRD161J-273Y | C R | 27kΩ 1/6W J | * |
| R1709 | QRD161J-102Y | C R | 1kΩ 1/6W J | * |
| C A P A C I T O R | | | | |
| C1001 | QCZ0120-104MZ | C CAP. | 0.1 μF 25V Z | * |
| C1003 | QCT25CH-270Z | C CAP. | 27 pF 50V J | * |
| C1005 | QCT25CH-150Z | C CAP. | 15 pF 50V J | * |
| C1362 | QCT25CH-270Z | C CAP. | 27 pF 50V J | * |
| C1701 | QETN1HM-226Z | E CAP. | 22 μF 50V M | * |
| C1702-04 | QETN1HM-106Z | E CAP. | 10 μF 50V M | * |
| C1705-07 | QCZ0120-104MZ | C CAP. | 0.1 μF 25V Z | * |
| C O I L | | | | |
| L1301 | CELP027-390Z | PEAKING COIL | 39 μH | * |
| T R A N S I S T O R | | | | |
| Q1347 | 2SK301 (P)-T | F. E. T. | | * |
| Q1701-03 | 2PC1815 (YG)-T | SI. TRANSISTOR | | * |
| I C | | | | |
| IC1001 | HD74AC00P | I C | | |
| IC1001 | TC74AC00AP | I C | | |

IF PW BOARD ASS'Y (SMB0F701B-U2)

This PW Board Ass'Y is included in the above MAIN PW Board Ass'Y.

| △ Symbol No. | Part No. | Part Name | Description | Local |
|------------------------------|---------------|-----------------|-----------------|-------|
| R E S I S T O R | | | | |
| R0103 | QRSA08J-102YL | CHIP MG R | 1kΩ 1/10W J | * |
| R0104 | QRSA08J-121YL | CHIP MG R | 120 Ω 1/10W J | * |
| R0105 | QRSA08J-151YL | CHIP MG R | 150 Ω 1/10W J | * |
| R0106 | QRSA08J-181YL | CHIP MG R | 180 Ω 1/10W J | * |
| R0107 | QRSA08J-151YL | CHIP MG R | 150 Ω 1/10W J | * |
| △ R0609 | QRZ0054-470M | F R | 47 Ω 1/4W J | * |
| C A P A C I T O R | | | | |
| C0020 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0022-25 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0026-27 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0030 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0040 | NCT03CH-102AY | CHIP CAP. | 1000 pF 1600V H | * |
| C0041 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| C0042 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0043 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| C0044 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0046 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0047 | QETN1CM-227Z | E CAP. | 220 μF 16V M | * |
| C0050 | QETN1HM-105Z | E CAP. | 1 μF 50V M | * |
| C0051 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0052 | QAT3110-100A | TRIM CAP. | 10 pF 100V | * |
| C0053 | NCT03CH-6R0AY | CHIP CAP. | 6 pF 1600V H | * |
| C0054 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0055 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| C0056 | QETN1HM-474Z | E CAP. | 0.47 μF 50V M | * |
| C0057 | NCT03CH-102AY | CHIP CAP. | 1000 pF 1600V H | * |
| C0058 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0059 | QAT3110-100A | TRIM CAP. | 10 pF 100V | * |
| C0060 | NCT03CH-120AY | CHIP CAP. | 12 pF 1600V H | * |
| C0061 | NCT03CH-7R0AY | CHIP CAP. | 7 pF 1600V H | * |
| C0062 | QETN1HM-474Z | E CAP. | 0.47 μF 50V M | * |
| C0063 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0064 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0065 | QETN1HM-105Z | E CAP. | 1 μF 50V M | * |
| C0067 | NCT03CH-120AY | CHIP CAP. | 12 pF 1600V H | * |
| C0069-70 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0071 | QETN1HM-336Z | E CAP. | 33 μF 50V M | * |
| C0080-81 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0101 | QETN1CM-476Z | E CAP. | 47 μF 16V M | * |
| C0102 | NCT03CH-391AY | CHIP CAP. | 390 pF 1600V H | * |
| C0103 | NCT03CH-121AY | CHIP CAP. | 120 pF 1600V H | * |
| C0104 | NCT03CH-181AY | CHIP CAP. | 180 pF 1600V H | * |
| C0105 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0140 | QETN1HM-335Z | E CAP. | 3.3 μF 50V M | * |
| C0141 | NCB21HK-332AY | CHIP CAP. | 3300 pF 50V K | * |
| C0142 | QETN1HM-105Z | E CAP. | 1 μF 50V M | * |
| C0143 | QFLC1HJ-683MZ | M CAP. | 0.068 μF 50V Z | * |
| C0144 | QETN1HM-335Z | E CAP. | 3.3 μF 50V M | * |
| C0145 | NCB21HK-222AY | CHIP CAP. | 2200 pF 50V K | * |
| C0601 | QFLC1HJ-183MZ | M CAP. | 0.018 μF 50V J | * |
| C0602 | QETN1CM-476Z | E CAP. | 47 μF 16V M | * |
| C0603 | QETN1HM-106Z | E CAP. | 10 μF 50V M | * |
| C0604 | QETN1HM-105Z | E CAP. | 1 μF 50V M | * |
| C0605 | QETN1CM-477Z | E CAP. | 470 μF 16V M | * |
| C0606 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| T R A N S F O R M E R | | | | |
| T0020 | QQR0626-001 | I. F. TRANSF. | | * |
| T0050 | CEL T001-307 | C. WAVE TRANSF. | | * |
| T0051 | CEL T001-306 | C. WAVE TRANSF. | | * |
| C O I L | | | | |
| L0020 | CELP041-R47 | PEAKING COIL | 0.47 μH | * |
| L0021 | CE41131-1R5Y | INDUCTOR | 1.5 μH | * |
| L0030 | CE41131-2R2Y | INDUCTOR | 2.2 μH | * |

100Hz PW BOARD ASS'Y (SMB0Z001B-U2)

This PW Board Ass'Y is included in the above MAIN PW Board Ass'Y.

| △ Symbol No. | Part No. | Part Name | Description | Local |
|--------------------------|----------------|-------------|---------------|-------|
| R E S I S T O R | | | | |
| R0302 | NRVA02D-1502NY | M. F. R | 15kΩ 1/10W J | |
| R0303 | NRVA02D-1102NY | CHIP MF R | 11kΩ 1/10W J | |
| C A P A C I T O R | | | | |
| C0001 | QETN1CM-227Z | E CAP. | 220 μF 16V M | * |
| C0002 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0003 | QETN1CM-227Z | E CAP. | 220 μF 16V M | * |
| C0004 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0005 | QETN1CM-227Z | E CAP. | 220 μF 16V M | * |
| C0006 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0007 | QETN1CM-227Z | E CAP. | 220 μF 16V M | * |
| C0008 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0009-10 | QETN1AM-108Z | E CAP. | 1000 μF 10V M | * |
| C0101 | NGS21HJ-151AY | C CAP. | 150 pF 50V J | * |
| C0102 | NCT03CH-390AY | CHIP CAP. | 39 pF 1600V H | * |
| C0103 | NCS21HJ-271AY | C CAP. | 270 pF 50V J | * |
| C0106 | QETN1HM-105Z | E CAP. | 1 μF 50V M | * |
| C0107 | NCF21HZ-224AY | CHIP C CAP. | 0.22 μF 50V Z | * |
| C0108 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0109 | QETN1CM-476Z | E CAP. | 47 μF 16V M | * |
| C0111 | NGS21HJ-151AY | C CAP. | 150 pF 50V J | * |
| C0112 | NCT03CH-390AY | CHIP CAP. | 39 pF 1600V H | * |
| C0113 | NGS21HJ-271AY | C CAP. | 270 pF 50V J | * |
| C0116 | QETN1HM-105Z | E CAP. | 1 μF 50V M | * |
| C0117 | NCF21HZ-224AY | CHIP C CAP. | 0.22 μF 50V Z | * |
| C0118 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0121 | NGS21HJ-151AY | C CAP. | 150 pF 50V J | * |
| C0122 | NCT03CH-390AY | CHIP CAP. | 39 pF 1600V H | * |
| C0123 | NGS21HJ-271AY | C CAP. | 270 pF 50V J | * |
| C0126 | QETN1HM-106Z | E CAP. | 10 μF 50V M | * |
| C0127 | NCF21HZ-224AY | CHIP C CAP. | 0.22 μF 50V Z | * |
| C0128 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0131 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0132 | QETNOJM-227Z | E CAP. | 220 μF 6.3V M | * |
| C0133 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0134 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0135-36 | QETNOJM-227Z | E CAP. | 220 μF 6.3V M | * |
| C0137 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0138 | QETNOJM-227Z | E CAP. | 220 μF 6.3V M | * |
| C0139 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0142-47 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0148 | QETNOJM-227Z | E CAP. | 220 μF 6.3V M | * |
| C0149-54 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0155 | NCT03CH-390AY | CHIP CAP. | 39 pF 1600V H | * |
| C0201-06 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0207 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0208-13 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0214 | NCT03CH-100AY | CHIP CAP. | 10 pF 1600V H | * |
| C0221-38 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0301 | QETNOJM-227Z | E CAP. | 220 μF 6.3V M | * |
| C0302 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0303 | QETNOJM-227Z | E CAP. | 220 μF 6.3V M | * |
| C0304 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0307-08 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0309 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| C0310 | QETNOJM-227Z | E CAP. | 220 μF 6.3V M | * |
| C0311 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0313 | NGS21HJ-152AY | CHIP C CAP. | 1500 pF 50V J | * |
| C0314-18 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0321 | QETN1HM-105Z | E CAP. | 1 μF 50V M | * |
| C0322 | NCF21HZ-224AY | CHIP C CAP. | 0.22 μF 50V Z | * |
| C0323 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0324 | QETN1CM-476Z | E CAP. | 47 μF 16V M | * |
| C0331 | QETN1HM-105Z | E CAP. | 1 μF 50V M | * |

| △ Symbol No. | Part No. | Part Name | Description | Local |
|----------------------------|----------------|-------------------|--------------------|-------|
| C A P A C I T O R | | | | |
| C0332 | NCF21HZ-224AY | CHIP C CAP. | 0.22 μ F 50V Z | |
| C0333 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0341 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C0342 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C0343 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0401 | NCB21HK-103AY | CHIP CAP. | 0.01 μ F 50V K | * |
| C0402 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0403 | QETNOJM-227Z | E CAP. | 220 μ F 6.3V M | * |
| C0404 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0405 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C0406 | NCF21EZ-104AY | C CAP. | 0.1 μ F 50V Z | * |
| C0407 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0408 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C0409-10 | NCT03CH-270AY | CHIP CAP. | 27 pF 1600V H | * |
| C0411 | NCT03CH-180AY | CHIP CAP. | 18 pF 1600V H | * |
| C0412-13 | NCB21HK-103AY | CHIP CAP. | 0.01 μ F 50V K | * |
| C0415 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C O I L | | | | |
| L0001-02 | CE40344-4R7YL | INDUCTOR | 4.7 μ H | * |
| L0003-04 | CE40344-100YL | INDUCTOR | 10 μ H | * |
| L0005-07 | CE40344-4R7YL | INDUCTOR | 4.7 μ H | * |
| L0101 | CE41131-3R3Y | INDUCTOR | 3.3 μ H | * |
| L0111 | CE41131-3R3Y | INDUCTOR | 3.3 μ H | * |
| L0121 | CE41131-3R3Y | INDUCTOR | 3.3 μ H | * |
| L0301 | CE41131-100Y | INDUCTOR | 10 μ H | * |
| L0401-02 | CE40344-330YL | INDUCTOR | 33 μ H | * |
| D I O D E | | | | |
| D0301 | MA3051 (L)-X | ZENER DIODE | | * |
| T R A N S I S T O R | | | | |
| Q0101 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0102 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0103 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0104 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0111 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0112 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0113 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0114 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0121 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0122 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0123 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0124 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0131 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0321 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0322 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0323 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0324 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0331 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0332 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0333 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0334 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0341 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0342 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0343 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0344-45 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0351 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0361 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0401 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| I C | | | | |
| IC0101 | SDA9205-2-W | I. C (DIGI-MOS) | | * |
| IC0201 | SDA9272 | I. C (MICRO-COMP) | | * |
| IC0202 | SDA9251-X | I. C (SAM) | | * |
| IC0203-04 | SDA9253 | I. C (SAM) | | * |

| △ Symbol No. | Part No. | Part Name | Description | Local |
|--------------------|--------------|-------------------|-------------|-------|
| I C | | | | |
| IC0301 | SDA9280-W | I. C (DIGI-OTHER) | | * |
| IC0401 | SDA9257 | I. C (DIGI-OTHER) | | |
| IC0402 | MC74F04M-X | I C | | |
| O T H E R S | | | | |
| DL0321 | NQR0241-001X | L. P. F | | * |
| DL0331 | NQR0241-001X | L. P. F | | * |
| DL0341 | NQR0242-001X | L. P. F | | * |
| EF0001-05 | CE42482-103Y | EMI FILTER | | * |
| EF0006 | CE42482-470Y | EMI FILTER | | * |
| EF0101 | CE42482-470Y | EMI FILTER | | * |
| EF0111 | CE42482-470Y | EMI FILTER | | * |
| EF0121 | CE42482-470Y | EMI FILTER | | * |
| EF0321 | CE42482-470Y | EMI FILTER | | * |
| EF0331 | CE42482-470Y | EMI FILTER | | * |
| EF0341-42 | CE42482-470Y | EMI FILTER | | * |
| EF0351 | CE42482-470Y | EMI FILTER | | * |
| EF0361 | CE42482-470Y | EMI FILTER | | * |
| K0001 | CE41433-001Z | BEADS CORE | | * |
| X0401 | QAX0350-001 | X TAL | | |

AUDIO PW BOARD ASS'Y (SMB-6001B-U2)

| △ Symbol No. | Part No. | Part Name | Description | Local |
|----------------------------|----------------|------------------|--------------------|-------|
| C A P A C I T O R | | | | |
| C6101 | QFV71HJ-684MZ | TF CAP. | 0.68 μ F 50V J | * |
| C6102-03 | QETM1EM-228 | E CAP. | 2200 μ F 25V M | * |
| C6105 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C6106 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C6108 | QFV71HJ-684MZ | TF CAP. | 0.68 μ F 50V J | * |
| C6109-10 | QFV71HJ-104MZ | TF CAP. | 0.1 μ F 50V J | |
| C6112 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C6113 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C6115-16 | QFV71HJ-684MZ | TF CAP. | 0.68 μ F 50V J | * |
| C6117-18 | QFV71HJ-104MZ | TF CAP. | 0.1 μ F 50V J | |
| C6121 | QFLC1HJ-103MZ | M CAP. | 0.01 μ F 50V J | * |
| D I O D E | | | | |
| D6101-04 | MTZJ27 (B)-T2 | ZENER DIODE | | * |
| D6105 | MTZJ5.1 (B)-T2 | ZENER DIODE | | * |
| D6107 | 1SS133-T2 | SI. DIODE | | * |
| D6108 | MA700-T2 | SI. DIODE | | * |
| D6112 | 1SS133-T2 | SI. DIODE | | * |
| D6115 | 1SS133-T2 | SI. DIODE | | * |
| T R A N S I S T O R | | | | |
| Q6101 | DTC144ESA-T | DIGI. TRANSISTOR | | |
| Q6102 | 2PA1015 (YG)-T | SI. TRANSISTOR | | * |
| Q6104 | 2PA1015 (YG)-T | SI. TRANSISTOR | | * |
| Q6105 | DTC144ESA-T | DIGI. TRANSISTOR | | |
| Q6106-07 | DTC323TS-T | DIGI. TRANSISTOR | | * |
| I C | | | | |
| IC6101-02 | TDA2052V | I. C (MONO-ANA) | | * |
| O T H E R S | | | | |
| K6001-02 | CE41433-001Z | BEADS CORE | | * |

POWER DEF PW BOARD ASS'Y (SMB-2001B-U2)

| △ Symbol No. | Part No. | Part Name | Description | Local |
|------------------|----------------|-----------|--------------------|-------|
| RESISTOR | | | | |
| R2409 | QRX019J-1R0S | MF R | 1 Ω 1W J | * |
| R2411 | QRG029J-221 | OM R | 220 Ω 2W J | |
| R2412-13 | QRX019J-1R8S | MF R | 1.8 Ω 1W J | * |
| R2418 | QRV141F-6802AY | MF R | 68k Ω 1/4W F | |
| R2419 | QRV141F-7870AY | MF R | 787 Ω 1/4W F | |
| R2421 | QRV141F-1003AY | MF R | 100k Ω 1/4W F | |
| R2422 | QRV141F-1501AY | MF R | 1.5k Ω 1/4W F | |
| R2508 | QRV141F-2002AY | MF R | 20k Ω 1/4W F | |
| R2509 | QRV141F-4701AY | MF R | 4.7k Ω 1/4W F | |
| R2516 | QRG039J-272 | OM R | 2.7k Ω 3W J | |
| R2517 | QRG039J-122 | OM R | 1.2k Ω 3W J | |
| R2533 | QRX039J-5R6 | MF R | 5.6 Ω 3W J | |
| R2571 | QRG029J-123 | OM R | 12k Ω 2W J | * |
| R2581 | QRF104J-100 | UNF R | 10 Ω 10W J | * |
| R2902 | QRF154K-4R7 | UNF R | 4.7 Ω 15W K | * |
| R2905 | QRG039J-333 | OM R | 33k Ω 3W J | * |
| R2907 | QRM059J-R22 | MP R | 0.22 Ω 5W J | * |
| R2910 | QRG039J-393 | OM R | 39k Ω 3W J | |
| R2951 | QRF074J-102 | UNF R | 1k Ω 7W J | * |
| R2952 | QRG029J-123 | OM R | 12k Ω 2W J | * |
| R2953 | QRX039J-5R6 | MF R | 5.6 Ω 3W J | |
| R2962-63 | QRG019J-220S | OM R | 22 Ω 1W J | * |
| △ R2991 | QRZ0057-825 | C R | 8.2M Ω 1W J | * |
| CAPACITOR | | | | |
| C2401 | QFLC2AJ-104MZ | M CAP. | 0.1 μF 100V J | * |
| C2402 | QETC1VM-337Z | E CAP. | 330 μF 35V M | * |
| C2403 | QFV71HJ-104MZ | TF CAP. | 0.1 μF 50V J | |
| C2405 | QFV71HJ-474MZ | TF CAP. | 0.47 μF 50V J | * |
| C2406 | QFLC2AJ-104MZ | M CAP. | 0.1 μF 100V J | * |
| C2407 | QFLC2AK-223MZ | M CAP. | 0.022 μF 100V K | * |
| C2410 | QFV71HJ-474MZ | TF CAP. | 0.47 μF 50V J | * |
| C2411 | QETN1HM-226Z | E CAP. | 22 μF 50V M | * |
| C2412 | QETM1VM-108 | E CAP. | 1000 μF 35V M | * |
| C2415 | QCT25CH-470Z | C CAP. | 47 pF 50V J | * |
| C2501 | QFV71HJ-124MZ | TF CAP. | 0.12 μF 50V J | * |
| C2502 | QETN1CM-108Z | E CAP. | 1000 μF 16V M | * |
| C2503 | QETN2AM-106Z | E CAP. | 10 μF 100V M | * |
| C2504 | QETN1AM-227Z | E CAP. | 220 μF 10V M | * |
| C2505 | QFLC2AJ-102MZ | M CAP. | 1000 pF 100V J | * |
| C2507 | QFLC1HJ-104MZ | M CAP. | 0.1 μF 16V J | * |
| C2508 | QFM72DK-103M | M CAP. | 0.01 μF 200V K | * |
| C2509 | QETN1AM-227Z | E CAP. | 220 μF 10V M | * |
| C2520 | QFV71HJ-224MZ | TF CAP. | 0.22 μF 50V J | * |
| C2521 | QFZ0117-1701S | MPP CAP. | 1700 pF 2000V±2.5% | |
| C2522 | QFZ0117-4701S | MPP CAP. | 4700 pF 2000V±2.5% | |
| C2523 | QFM72DK-683M | M CAP. | 0.068 μF 200V K | * |
| C2525 | QFZ0117-4701S | MPP CAP. | 4700 pF 2000V±2.5% | |
| C2526 | QFZ0119-684S | MPP CAP. | 0.68 μF 200V J | * |
| C2527 | QFZ0119-514S | MPP CAP. | 0.51 μF 200V J | * |
| C2528 | QFZ0128-404S | MPP CAP. | 0.4 μF 400V ±3% | |
| C2529 | QFZ0128-204S | MPP CAP. | 0.2 μF 400V ±3% | |
| C2533 | QFZ0194-534 | MPP CAP. | 0.53 μF 250V J | |
| C2536 | QFZ0119-534S | MPP CAP. | 0.53 μF 200V ±3% | * |
| C2537 | QETM2CM-227 | E CAP. | 220 μF 160V M | * |
| C2541 | QEZ0195-475MZ | E CAP. | 4.7 μF 50V M | * |
| C2544 | QETN1EM-476Z | E CAP. | 47 μF 25V M | * |
| C2545 | QETN1AM-107Z | E CAP. | 100 μF 10V M | * |
| C2546 | QFLC1HK-104MZ | M CAP. | 0.1 μF 50V K | * |
| C2551 | QEN61HM-105Z | BP E CAP. | 1 μF 50V M | * |
| C2554 | QETN2EM-106Z | E CAP. | 10 μF 250V M | * |
| C2555-56 | QETN1EM-108Z | E CAP. | 1000 μF 25V M | * |
| C2561 | QCZO122-681A | C CAP. | 680 pF 2000V K | |
| C2581 | QETC0JM-107Z | E CAP. | 100 μF 6.3V M | * |
| C2582 | QETN1CM-476Z | E CAP. | 47 μF 16V M | * |

| △ Symbol No. | Part No. | Part Name | Description | Local |
|--------------------|---------------|-------------------|----------------------|-------|
| CAPACITOR | | | | |
| △ C2902 | QFZ9040-473N | MM CAP. | 0.47 μ F 400V M | * |
| C2903 | QCZ9034-472A | C CAP. | 0.047 μ F 400V P | * |
| C2904-05 | QCZ9034-472A | C CAP. | 4700 pF 400V P | * |
| C2906 | QEZ0199-227M | E CAP. | 220 μ F | * |
| C2908 | QCZ0122-151A | C CAP. | 150 pF 2000V K | * |
| C2909 | QCZ0122-221A | C CAP. | 220 pF 2000V K | * |
| C2910 | QETN1EM-227Z | E CAP. | 220 μ F 25V M | * |
| C2914 | QFLC1HK-104MZ | M CAP. | 0.1 μ F 50V K | * |
| C2916 | QFLC1HJ-102MZ | M CAP. | 1000 pF 50V J | * |
| C2919 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C2920 | QFLC1HJ-472MZ | M CAP. | 4700 pF 50V J | * |
| C2951 | QEZ0203-227 | E CAP. | 200 μ F 160V M | * |
| C2952 | QEH01CM-108MZ | E CAP. | 1000 μ F 16V M | * |
| C2953 | QEH01CM-108M | E CAP. | 1000 μ F 16V M | * |
| C2954 | QEZ0106-228R | E CAP. | 2200 μ F 10V M | * |
| C2955 | QETB1VM-108 | E CAP. | 1000 μ F 35V M | * |
| C2960 | QCY32HK-102RZ | CH C CAP. | 1000 pF 500V K | * |
| C2966-68 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C2970 | QEH01HM-336MZ | E CAP. | 33 μ F 50V M | * |
| C2971 | QEH01CM-107MZ | E CAP. | 100 μ F 16V M | * |
| C2972 | QETN1AM-228Z | E CAP. | 2200 μ F 10V M | * |
| C2973 | QEH01AM-227MZ | E CAP. | 220 μ F 10V M | * |
| C2975 | QEH01CM-228M | E CAP. | 2200 μ F 16V M | * |
| C2976 | QEZ0106-228R | E CAP. | 2200 μ F 10V M | * |
| C2977 | QEH01AM-107MZ | E CAP. | 100 μ F 10V M | * |
| C2978 | QCZ0122-151A | C CAP. | 150 pF 2000V K | * |
| C2981 | QETN1EM-227Z | E CAP. | 220 μ F 25V M | * |
| C2982-83 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| △ C2991 | QCZ9041-471A | C CAP. | 470 pF 400V K | * |
| △ C2992 | QCZ9041-332A | C CAP. | 330 pF 400V M | * |
| TRANSFORMER | | | | |
| T2501 | CE42672-001 | DRIVE TRANSF | | * |
| T2521 | QQR0706-001 | PINC. TRANSF. | | * |
| △ T2551 | CETH021-00AJ1 | H. V. T (SERVICE) | | * |
| T2561 | CE42692-001J1 | DAF TRANSF. | | * |
| △ T2901 | CETS089-001J4 | SWITCH. TRANSF. | | * |
| T2981 | QQT0147-001 | POWER TRANSF. | | * |
| COIL | | | | |
| L2521 | QQR0707-002 | LINEARITY COIL | | * |
| L2541 | QQR0705-001 | CHOKE COIL | | * |
| L2551 | CELC901-056J6 | HEATER CHOKE | | * |
| L2901-02 | CELC055-100 | CHOKE COIL | | * |
| L2903 | CELC005-2R5J7 | CHOKE COIL | 2.5 μ H | * |
| L2951 | CELC901-046J6 | HEATER CHOKE | | * |
| L2952-53 | CELC057-5R6Z | CHOKE COIL | 5.6 μ H | * |
| L2954 | CELC058-220Z | CHOKE COIL | 22 μ H | * |
| DIODE | | | | |
| D2401 | MTZJ75-T2 | ZENER DIODE | | * |
| D2402 | BYD33D-T3 | SI. DIODE | | * |
| D2403 | 1SS133-T2 | SI. DIODE | | * |
| D2404 | MTZJ7.5S-T2 | ZENER DIODE | | * |
| D2405 | 1SS133-T2 | SI. DIODE | | * |
| D2406-09 | MA700A-T2 | SI. DIODE | | * |
| D2410 | 1SS133-T2 | SI. DIODE | | * |
| D2411 | MTZJ22(B)-T2 | ZENER DIODE | | * |
| D2501 | BYD33G-T3 | SI. DIODE | | * |
| D2502 | MTZJ7.5S-T2 | ZENER DIODE | | * |
| D2504 | 1SS133-T2 | SI. DIODE | | * |
| D2505 | MTZJ6.8(A)-T2 | ZENER DIODE | | * |
| D2506 | 1SS146-T2 | SI. DIODE | | * |
| D2507 | 1SS81-T5 | SI. DIODE | | * |
| D2508 | 1SS133-T2 | SI. DIODE | | * |
| D2521 | FMV-3FU-C1 | SI. DIODE | | * |
| D2525 | V11CA-C1 | SI. DIODE | | * |

| △ Symbol No. | Part No. | Part Name | Description | Local |
|----------------------------|----------------|------------------|-------------|-------|
| D I O D E | | | | |
| D2541 | MTZJ6.8(C)-T2 | ZENER DIODE | | * |
| D2542 | 1SS133-T2 | SI. DIODE | | * |
| D2550-51 | BYD33G-T3 | SI. DIODE | | * |
| D2552-53 | BYW95B-20 | SI. DIODE | | * |
| D2556 | BYD33G-T3 | SI. DIODE | | * |
| D2571 | MTZJ33(B)-T2 | ZENER DIODE | | * |
| D2581 | MTZJ15(B)-T2 | ZENER DIODE | | * |
| D2582 | MTZJ7.5(B)-T2 | ZENER DIODE | | * |
| D2585 | 1SS133-T2 | SI. DIODE | | * |
| D2901 | D3SB60 | BRIDGE DIODE | | |
| D2902 | BYD33M-T3 | SI. DIODE | | * |
| D2903 | 1SR124-400A-T2 | SI. DIODE | | * |
| D2904-05 | BYD33D-T3 | SI. DIODE | | * |
| D2951-52 | RU4C-C1 | SI. DIODE | | |
| D2953 | BYD33M-T3 | SI. DIODE | | * |
| D2954-55 | BYW95B-20 | SI. DIODE | | * |
| D2956 | SF6L20U | SI. DIODE | | |
| D2957 | BYW95B-20 | SI. DIODE | | * |
| D2958-59 | SF6L20U | SI. DIODE | | |
| D2960 | MTZJ5.1(A)-T2 | ZENER DIODE | | * |
| D2961 | MTZJ5.6(A)-T2 | ZENER DIODE | | * |
| D2962-66 | 1SS133-T2 | SI. DIODE | | * |
| D2968 | 1SS133-T2 | SI. DIODE | | * |
| D2970 | 1SS133-T2 | SI. DIODE | | * |
| D2981-84 | 1N4003-T2 | SI. DIODE | | * |
| D2985 | 1SS133-T2 | SI. DIODE | | * |
| D2986 | MTZJ8.2(B)-T2 | ZENER DIODE | | * |
| D2987 | 1SS133-T2 | SI. DIODE | | * |
| T R A N S I S T O R | | | | |
| Q2401-02 | DTC144ESA-T | DIGI. TRANSISTOR | | |
| Q2403 | 2PC1815(YG)-T | SI. TRANSISTOR | | * |
| Q2404 | DTC144ESA-T | DIGI. TRANSISTOR | | |
| Q2405-06 | 2PC1815(YG)-T | SI. TRANSISTOR | | * |
| Q2501 | BSN274 | F. E. T. | | * |
| Q2505 | 2PA1015(YG)-T | SI. TRANSISTOR | | * |
| Q2506 | 2PC1815(YG)-T | SI. TRANSISTOR | | * |
| Q2521 | 2SC5406-RL | SI. TRANSISTOR | | * |
| Q2523 | IRF640 | F. E. T. | | |
| Q2526 | DTC124ESA-T | DIGI. TRANSISTOR | | * |
| Q2541 | 2SD1408(OY)-LB | SI. TRANSISTOR | | |
| Q2551 | DTA124ESA-T | DIGI. TRANSISTOR | | |
| Q2552 | DTC144ESA-T | DIGI. TRANSISTOR | | |
| Q2581 | 2SA949(Y)C1 | SI. TRANSISTOR | | * |
| Q2582 | DTC144ESA-T | DIGI. TRANSISTOR | | |
| Q2901 | 2SK2148-C1 | F. E. T. | | |
| Q2955 | 2PC1815(YG)-T | SI. TRANSISTOR | | * |
| Q2981 | 2SC2655(Y)-T | SI. TRANSISTOR | | * |
| Q2982 | 2PC1815(YG)-T | SI. TRANSISTOR | | * |
| I C | | | | |
| IC2401 | LA7841 | I. C (MONO-ANA) | | |
| IC2501 | TDA9151B | I. C (DEF-PRO) | | * |
| IC2541 | UPC4558C | I. C (MONO-ANA) | | |
| IC2901 | MC44603P | I. C (MONO-ANA) | | * |
| IC2951 | SE135N | I. C (HYBRID) | | * |
| IC2952 | LM2940CT-12 | I. C (MONO-ANA) | | |
| IC2953 | UPC2409AHF | I. C (MONO-ANA) | | |
| IC2954 | KIA7808PI | I. C (MONO-ANA) | | * |
| IC2955-56 | PQ05RF21 | I. C (MONO-ANA) | | |
| IC2957 | KIA7808PI | I. C (MONO-ANA) | | * |
| O T H E R S | | | | |
| △ FR2551 | QRH017J-1ROM | F R | 1 Ω 1W J | * |
| △ FR2552 | QRH017J-1ROM | F R | 1 Ω 1W J | * |

| △ Symbol No. | Part No. | Part Name | Description | Local |
|---------------|-----------------|--------------------|--------------|-------|
| OTHERS | | | | |
| △ FR2553 | QRZ0054-4R7M | F R | 4.7 Ω 1/4W J | * |
| K2402 | CE41433-001Z | BEADS CORE | | * |
| K2502-05 | QQR0679-001 | FERRITE BEADS | | |
| K2901-04 | CE42050-001Z | CORE | | * |
| K2951 | CE41433-001Z | BEADS CORE | | * |
| PC2521 | TLP621 (B) | I. C (PH. COUPLER) | | * |
| △ PC2901 | TLP721F (D4-GR) | I. C (PH. COUPLER) | | * |
| RY2981 | GESK028-002 | RELAY | | * |
| TH2901 | CEKP002-003 | W. P. THERMISTOR | | * |
| VA2561 | ERZV10V112C1 | VARISTOR | | * |

CRT SOCKET PW BOARD ASS'Y (SMB-3001B-U2)

| △ Symbol No. | Part No. | Part Name | Description | Local |
|-------------------|------------------|-----------------|------------------|-------|
| RESISTOR | | | | |
| R3106 | QRD14CJ-100SX | C R | 10 Ω 1/4W J | |
| R3119 | QRG029J-391A | OM R | 390 Ω 2W J | * |
| R3229-31 | QRG019J-823S | OM R | 82kΩ 1W J | |
| CAPACITOR | | | | |
| C3101 | QETN1HM-106Z | E CAP. | 10 μF 50V M | * |
| C3102 | QFLC1HK-103MZ | M CAP. | 0.01 μF 50V K | * |
| C3103 | QETN1HM-335Z | E CAP. | 3.3 μF 50V M | * |
| C3104 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| C3107 | QETC2CM-106Z | E CAP. | 10 μF 160V M | * |
| C3110 | QETC2CM-106Z | E CAP. | 10 μF 160V M | * |
| C3111 | QETC0JM-107Z | E CAP. | 100 μF 6.3V M | * |
| C3118 | QETN1HM-106Z | E CAP. | 10 μF 50V M | * |
| C3204-09 | QCZ0120-104MZ | C CAP. | 0.1 μF 25V Z | * |
| C3210-12 | QFH62EK-104MZ | MM CAP. | 0.1 μF 250V K | * |
| C3218 | QETM2EM-336 | E CAP. | 33 μF 250V M | * |
| C3219 | QFZ0097-223M | M M CAP. | 0.022 μF 1250V K | * |
| C3221 | QETC2EM-106Z | E CAP. | 10 μF 250V M | * |
| C3301 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| COIL | | | | |
| L3101 | CELP026-150Z | PEAKING COIL | 15 μH | * |
| L3201-03 | CELP026-4R7Z | PEAKING COIL | 4.7 μH | * |
| DIODE | | | | |
| D3101-02 | RH1S-T3 | SI. DIODE | | * |
| D3103 | MA165-T2 | SI. DIODE | | * |
| D3151 | 1SS133-T2 | SI. DIODE | | * |
| D3204-06 | EU01N-T2 | SI. DIODE | | |
| D3301 | 1SS252-T2 | SI. DIODE | | * |
| D3302-03 | 1SS133-T2 | SI. DIODE | | * |
| TRANSISTOR | | | | |
| Q3101 | 2SA1309A (QR) -T | SI. TRANSISTOR | | * |
| Q3102-03 | 2SC3311A (QR) -T | SI. TRANSISTOR | | |
| Q3104 | 2SA1309A (QR) -T | SI. TRANSISTOR | | * |
| Q3105 | 2SA1837 | SI. TRANSISTOR | | |
| Q3106 | 2SC4793 | SI. TRANSISTOR | | |
| Q3107 | 2SC3311A (QR) -T | SI. TRANSISTOR | | |
| Q3108 | 2SC1906-T | SI. TRANSISTOR | | * |
| Q3301 | 2PA1015 (YG) -T | SI. TRANSISTOR | | * |
| Q3302 | 2SC2655 (Y) -T | SI. TRANSISTOR | | * |
| Q3303 | 2PA1015 (YG) -T | SI. TRANSISTOR | | * |
| I C | | | | |
| IC3201-03 | TDA6111Q | I. C (MONO-ANA) | | |
| OTHERS | | | | |
| K3101-04 | CE41492-001Z | CHOKE COIL | | |
| △ R3109 | QRH017J-561M | F R | 560 Ω 1W J | * |
| △ SK3001 | CE42670-001 | C. R. T. SOCKET | | |

AV TERMINAL PW BOARD ASS'Y (SMB0J001B-U2)

| △ Symbol No. | Part No. | Part Name | Description | Local |
|------------------|----------------|-----------------|------------------|-------|
| CAPACITOR | | | | |
| C0102-04 | QEK01CM-106GMZ | E CAP. | 10 μ F 16V M | |
| C0301 | QEK01CM-476MZ | E CAP. | 47 μ F 16V M | * |
| COIL | | | | |
| L0101-04 | CELP017-5R6Y | PEAKING COIL | 5.6 μ H | * |
| L0105 | CE41832-001 | LEAD CORE | | * |
| L0201-04 | CELP017-5R6Y | PEAKING COIL | 5.6 μ H | * |
| L0205 | CE41832-001 | LEAD CORE | | * |
| L0301-02 | CELP017-5R6Y | PEAKING COIL | 5.6 μ H | * |
| L0303 | CE41832-001 | LEAD CORE | | * |
| OTHERS | | | | |
| J0001-03 | CE40529-006 | SCART CONNECTOR | | |

FRONT CONTROL PW BOARD ASS'Y (SMB-8001B-U2)

| △ Symbol No. | Part No. | Part Name | Description | Local |
|-------------------|----------------|------------------|-------------------|-------|
| CAPACITOR | | | | |
| C8003 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C8004 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| C8005 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C8009 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C8012 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C8013-14 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C8017-18 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C8020 | QCZ0120-104MZ | C CAP. | 0.1 μ F 25V Z | * |
| △ C8901 | QFZ9040-474N | MF CAP. | 0.47 μ F | * |
| COIL | | | | |
| L8001 | CE41832-001 | LEAD CORE | | * |
| L8002-03 | CELP017-5R6Y | PEAKING COIL | 5.6 μ H | * |
| L8010-11 | CELP017-270Y | PEAKING COIL | 27 μ H | * |
| L8012 | CE41832-001 | LEAD CORE | | * |
| DIODE | | | | |
| D8007 | P1201 | C. D. S. | | * |
| D8008 | 1SS133-T2 | SI. DIODE | | * |
| D8009 | SLR-342MG-T16 | L. E. D. (GRN) | ECO | * |
| D8010 | SPR-39MVWF | L. E. D. | POWER | * |
| D8011 | 1SS133-T2 | SI. DIODE | | * |
| D8012 | SLR-342DU-T16 | L. E. D. (ORG) | TIMER | * |
| D8013 | SLR-342YY-T16 | L. E. D. (YLW) | 3D-PHONIC | * |
| D8014 | MTZJ6.8 (A)-T2 | ZENER DIODE | | * |
| D8015-16 | MTZJ15 (C)-T2 | ZENER DIODE | | * |
| D8017 | MTZJ6.2 (B)-T2 | ZENER DIODE | | * |
| D8018 | MTZJ5.1 (B)-T2 | ZENER DIODE | | * |
| TRANSISTOR | | | | |
| Q8001 | 2PC1815 (YG)-T | SI. TRANSISTOR | | * |
| Q8002 | DTC144ES-T | DIGI. TRANSISTOR | | * |
| Q8003-04 | DTA144ESA-T | DIGI. TRANSISTOR | | * |
| IC | | | | |
| IC8001 | GP1U281Q | IFR DETECT UNIT | | * |
| IC8002 | BA4558 | I. C (MONO-ANA) | | * |
| OTHERS | | | | |
| | CEMG002-001Z | FUSE CLIP | | * |
| | CM36548-001-E | L. E. D. HOLDER | | * |
| | CM35921-A04-H | CDS HOLDER | | * |
| △ F8901 | QMF51D2-3R15J1 | FUSE | 3.15A | * |
| J8001 | QMS3007-C01 | JACK | HEADPHONE | * |
| J8004 | CEMN011-001 | JACK | V4IN | * |
| J8005 | CEMN011-002 | JACK | L4IN | * |
| J8006 | CEMN011-003 | JACK | R4IN | * |
| △ LF8901 | CELF012-001J7 | LINE FILTER | | * |
| △ LF8902 | CELF012-001J7 | LINE FILTER | | * |
| S8001 | CESP001-001 | PUSH SWITCH | CH UP/DOWN | |
| S8002 | CESP001-001 | PUSH SWITCH | MENU | |
| △ S8901 | QSP4K21-C01 | PUSH SWITCH | MAIN POWER | * |

DOLBY PW BOARD ASS'Y (SMB0D002B-U2)

| △ Symbol No. | Part No. | Part Name | Description | Local |
|------------------|---------------|-----------|---------------------|-------|
| CAPACITOR | | | | |
| C0101 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0102 | NCT03CH-680AY | CHIP CAP. | 68 pF 1600V H | * |
| C0103 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0104 | NCB21HK-473AY | CHIP CAP. | 0.047 μ F 50V K | * |
| C0105 | NCB21HK-223AY | CHIP CAP. | 0.022 μ F 50V K | * |
| C0106 | NCB21HK-102AY | CHIP CAP. | 1000 pF 50V K | * |
| C0107 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0108 | NCB21HK-473AY | CHIP CAP. | 0.047 μ F 50V K | * |
| C0109 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0110 | NCT03CH-680AY | CHIP CAP. | 68 pF 1600V H | * |
| C0111 | NCB21HK-473AY | CHIP CAP. | 0.047 μ F 50V K | * |
| C0112-13 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0115 | NCB21HK-473AY | CHIP CAP. | 0.047 μ F 50V K | * |
| C0116-25 | NCB21HK-102AY | CHIP CAP. | 1000 pF 50V K | * |
| C0126 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0127-28 | NCT03CH-220AY | CHIP CAP. | 22 pF 1600V H | * |
| C0129 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C0130 | NCB21HK-102AY | CHIP CAP. | 1000 pF 50V K | * |
| C0131 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0132 | NCB21HK-102AY | CHIP CAP. | 1000 pF 50V K | * |
| C0133 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0134 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C0135 | NCB21HK-102AY | CHIP CAP. | 1000 pF 50V K | * |
| C0136 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0137-38 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C0139 | NCB21HK-102AY | CHIP CAP. | 1000 pF 50V K | * |
| C0140 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0141 | NCB21HK-102AY | CHIP CAP. | 1000 pF 50V K | * |
| C0142 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C0143 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0144 | QETN1CM-227Z | E CAP. | 220 μ F 16V M | * |
| C0145 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0146 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C0147-53 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0201 | NCB21HK-103AY | CHIP CAP. | 0.01 μ F 50V K | * |
| C0202 | NCB21HK-223AY | CHIP CAP. | 0.022 μ F 50V K | * |
| C0203 | NCB21HK-182AY | CHIP CAP. | 1800 pF 50V K | * |
| C0204 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0205 | NCB21HK-103AY | CHIP CAP. | 0.01 μ F 50V K | * |
| C0206 | NCB21HK-223AY | CHIP CAP. | 0.022 μ F 50V K | * |
| C0207 | NCB21HK-182AY | CHIP CAP. | 1800 pF 50V K | * |
| C0208 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0209 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C0210 | NCB21HK-103AY | CHIP CAP. | 0.01 μ F 50V K | * |
| C0211 | NCB21HK-182AY | CHIP CAP. | 1800 pF 50V K | * |
| C0212 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0213 | NCB21HK-103AY | CHIP CAP. | 0.01 μ F 50V K | * |
| C0214 | NCB21HK-223AY | CHIP CAP. | 0.022 μ F 50V K | * |
| C0215 | NCB21HK-182AY | CHIP CAP. | 1800 pF 50V K | * |
| C0216 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0217 | NCB21HK-223AY | CHIP CAP. | 0.022 μ F 50V K | * |
| C0218-21 | NCT03CH-470AY | CHIP CAP. | 47 pF 1600V H | * |
| C0305 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0401 | QETN1HM-226Z | E CAP. | 22 μ F 50V M | * |
| C0402 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0403-04 | NCB21HK-272AY | CHIP CAP. | 2700 pF 50V K | * |
| C0405-06 | QETN1HM-225Z | E CAP. | 2.2 μ F 50V M | * |
| C0407-10 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0431 | QETN1HM-226Z | E CAP. | 22 μ F 50V M | * |
| C0432 | QETN1CM-477Z | E CAP. | 470 μ F 16V M | * |
| C0433-34 | NCB21HK-272AY | CHIP CAP. | 2700 pF 50V K | * |
| C0435 | QETN1HM-225Z | E CAP. | 2.2 μ F 50V M | * |
| C0436-39 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0440 | QETN1HM-225Z | E CAP. | 2.2 μ F 50V M | * |

| △ Symbol No. | Part No. | Part Name | Description | Local |
|----------------------------|-----------------|-------------------|---------------------|-------|
| C A P A C I T O R | | | | |
| C0451 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0452 | NCT03CH-100AY | CHIP CAP. | 10 p F 1600V H | * |
| C0453 | NCB21HK-103AY | CHIP CAP. | 0.01 μ F 50V K | * |
| C0454 | NCB21HK-473AY | CHIP CAP. | 0.047 μ F 50V K | * |
| C0456 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C0457 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0458 | NCB21HK-473AY | CHIP CAP. | 0.047 μ F 50V K | * |
| C0459 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C0460 | NCB21HK-103AY | CHIP CAP. | 0.01 μ F 50V K | * |
| C0461 | NCT03CH-100AY | CHIP CAP. | 10 p F 1600V H | * |
| C0462 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0465 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0501-02 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0503-04 | NCT03CH-100AY | CHIP CAP. | 10 p F 1600V H | * |
| C0505 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C0507-08 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C0531 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0532 | NCT03CH-100AY | CHIP CAP. | 10 p F 1600V H | * |
| C0536 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C0551 | NCF21CZ-105AY | C CAP. | 1 μ F 16V Z | * |
| C0553 | NCT03CH-100AY | CHIP CAP. | 10 p F 1600V H | * |
| C0555 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C0556 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0557 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C0601-02 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C0603-04 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0701-05 | NCB21HK-222AY | CHIP CAP. | 2200 p F 50V K | * |
| C O I L | | | | |
| L0101-04 | CE40344-4R7YL | INDUCTOR | 4.7 μ H | * |
| L0701-05 | CE40344-100YL | INDUCTOR | 10 μ H | * |
| L0706 | CE41433-001Z | BEADS CORE | | * |
| D I O D E | | | | |
| D0103 | MA3062 (M) -X | ZENER DIODE | | * |
| D0201 | MA3062 (M) -X | ZENER DIODE | | * |
| D0451 | MA141WK-X | SI. DIODE | | * |
| D0452 | MA3062 (M) -X | ZENER DIODE | | * |
| D0453 | MA141WK-X | SI. DIODE | | * |
| D0454 | MA3062 (M) -X | ZENER DIODE | | * |
| D0501-02 | MA3150 (M) -X | ZENER DIODE | | * |
| D0503 | MA3062-X | ZENER DIODE | | * |
| D0532 | MA3150 (M) -X | ZENER DIODE | | * |
| D0552 | MA3150 (M) -X | ZENER DIODE | | * |
| T R A N S I S T O R | | | | |
| Q0302 | DTC144EK-X | DIGI. TRANSISTOR | | * |
| Q0451-52 | DTC323TK-X | DIGI. TRANSISTOR | | * |
| Q0453 | DTC144EK-X | DIGI. TRANSISTOR | | * |
| Q0501 | 2SA1162 (YG) -X | SI. TRANSISTOR | | * |
| Q0502-03 | DTC323TK-X | DIGI. TRANSISTOR | | * |
| Q0531 | 2SA1162 (YG) -X | SI. TRANSISTOR | | * |
| Q0532 | DTC323TK-X | DIGI. TRANSISTOR | | * |
| Q0551 | 2SA1162 (YG) -X | SI. TRANSISTOR | | * |
| Q0553 | DTC323TK-X | DIGI. TRANSISTOR | | * |
| I C | | | | |
| IC0101 | SAA7367T-X | I. C (DIGI-MOS) | | * |
| IC0102 | TMS57052BFT | I. C (M) | | * |
| IC0103 | LC32464M-80X | I. C (D-RAM) | | * |
| IC0104-05 | PCM1717E-X | I. C (MONO-ANA) | | * |
| IC0111 | BA4558F-X | I. C (MONO-ANA) | | * |
| IC0201-02 | UPC324G2-X | I. C (MONO-ANA) | | * |
| IC0301 | TC4052BF-X | I. C (DIGI-MOS) | | * |
| IC0401 | TDA7315D | I. C (DIGI-OTHER) | | * |
| IC0431 | TDA7315D | I. C (DIGI-OTHER) | | * |

| △ Symbol No. | Part No. | Part Name | Description | Local |
|--------------------|--------------|-----------------|-------------|-------|
| I C | | | | |
| IC0451-52 | BA4558F-X | I. C (MONO-ANA) | | |
| IC0501 | BA4558F-X | I. C (MONO-ANA) | | |
| IC0551 | BA4558F-X | I. C (MONO-ANA) | | |
| O T H E R S | | | | |
| EF0101-05 | CE42482-103Y | EMI FILTER | | * |
| J0001 | CEMN036-004 | PIN JACK | | |
| J0002 | CEMN061-001 | PIN JACK | | |
| K0101-02 | CE42681-001Y | BEADS CORE | | |
| K0104-07 | CE42681-001Y | BEADS CORE | | |
| K0108 | CE41433-001Z | BEADS CORE | | * |
| X0101 | NAX0001-001X | CRYSTAL | | |

P&P PW BOARD ASS'Y (SMB0P001B-U2)

[AV-32WP2EN(A)]

| △ Symbol No. | Part No. | Part Name | Description | Local |
|--------------------------|---------------|-----------|-----------------|-------|
| VARIABLE RESISTOR | | | | |
| R0137 | QVPE611-103HZ | V R | 10kΩ B (NOISE) | |
| RESISTOR | | | | |
| R0001 | QRD12CJ-474SX | C R | 470kΩ 1/2W J | * |
| CAPACITOR | | | | |
| C0001 | NCB21HK-222AY | CHIP CAP. | 2200 pF 50V K | * |
| C0002 | QETN1HM-106Z | E CAP. | 10 μF 50V M | * |
| C0003 | QETN1CM-227Z | E CAP. | 220 μF 16V M | * |
| C0004-05 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0006 | QETC1HM-107Z | E CAP. | 100 μF 50V M | * |
| C0007 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| C0008 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0100 | QETN1CM-227Z | E CAP. | 220 μF 16V M | * |
| C0102-04 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0106-07 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0108-09 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0110 | NCB21HK-222AY | CHIP CAP. | 2200 pF 50V K | * |
| C0111 | QETN1HM-335Z | E CAP. | 3.3 μF 50V M | * |
| C0112 | QFLC1HJ-683MZ | M CAP. | 0.068 μF 50V J | * |
| C0113 | QETN1HM-105Z | E CAP. | 1 μF 50V M | * |
| C0114 | NCB21HK-332AY | CHIP CAP. | 3300 pF 50V K | * |
| C0115 | QETN1HM-335Z | E CAP. | 3.3 μF 50V M | * |
| C0116 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| C0117 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0118 | NCT03CH-102AY | CHIP CAP. | 1000 pF 1600V H | * |
| C0119 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0120 | QETN1HM-105Z | E CAP. | 1 μF 50V M | * |
| C0121 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0122 | QAT3110-100A | TRIM CAP. | 10 pF 100V | * |
| C0123 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| C0124 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0126 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0127 | NCT03CH-7R0AY | CHIP CAP. | 7 pF 1600V H | * |
| C0128 | NCT03CH-120AY | CHIP CAP. | 12 pF 1600V H | * |
| C0129 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| C0130 | NCT03CH-102AY | CHIP CAP. | 1000 pF 1600V H | * |
| C0131 | QETN1HM-474Z | E CAP. | 0.47 μF 50V M | * |
| C0132 | NCT03CH-6R0AY | CHIP CAP. | 6 pF 1600V H | * |
| C0133-34 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0135 | QETN1HM-336Z | E CAP. | 33 μF 50V M | * |
| C0136 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0137 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0138 | QETN1HM-474Z | E CAP. | 0.47 μF 50V M | * |
| C0139 | QAT3110-100A | TRIM CAP. | 10 pF 100V | * |
| C0140 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |

| △ Symbol No. | Part No. | Part Name | Description | Local |
|--------------------|---------------|------------------|-----------------|-------|
| CAPACITOR | | | | |
| C0141 | NCT03CH-120AY | CHIP CAP. | 12 p F 1600V H | * |
| C0142 | NCB21HK-103AY | CHIP CAP. | 0.01 μ F 50V K | * |
| C0143-44 | NCB21HK-472AY | CHIP CAP. | 4700 p F 50V K | * |
| C0145 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C0152 | NCT03CH-121AY | CHIP CAP. | 120 p F 1600V H | * |
| C0153 | NCT03CH-181AY | CHIP CAP. | 180 p F 1600V H | * |
| C0154-55 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0160 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0161 | NCT03CH-391AY | CHIP CAP. | 390 p F 1600V H | * |
| C0162 | NCB21HK-103AY | CHIP CAP. | 0.01 μ F 50V K | * |
| C0163 | QETN1CM-107Z | E CAP. | 100 μ F 16V M | * |
| C0164-65 | NCB21HK-103AY | CHIP CAP. | 0.01 μ F 50V K | * |
| C0304 | NCB21HK-332AY | CHIP CAP. | 3300 p F 50V K | * |
| C0305 | NCF21EZ-474AY | CHIP C CAP. | 0.47 μ F 25V Z | * |
| C0306 | QEN61HM-105Z | BP E CAP. | 1 μ F 50V M | * |
| C0307 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0308 | NCB21HK-332AY | CHIP CAP. | 3300 p F 50V K | * |
| C0309 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0310-11 | NCT03CH-120AY | CHIP CAP. | 12 p F 1600V H | * |
| C0312-16 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0317 | QETN1CM-477Z | E CAP. | 470 μ F 16V M | * |
| C0318-20 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0321-23 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0601 | NCB21HK-183AY | CHIP CAP. | 0.018 μ F 50V K | * |
| C0602 | QETN1CM-477Z | E CAP. | 470 μ F 16V M | * |
| C0603 | NCB21HK-103AY | CHIP CAP. | 0.01 μ F 50V K | * |
| C0604 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0605 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C0606 | QETN1HM-105Z | E CAP. | 1 μ F 50V M | * |
| C0801 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0802-12 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0813 | NCB21EK-104AY | CHIP CAP. | 0.1 μ F 25V K | * |
| C0814-32 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0833 | NCB21EK-104AY | CHIP CAP. | 0.1 μ F 25V K | * |
| C0834-40 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0841 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0842 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0843 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0844 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0845 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0846 | NCT03CH-390AY | CHIP CAP. | 39 p F 1600V H | * |
| C0850 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C0851-52 | NCB21EK-104AY | CHIP CAP. | 0.1 μ F 25V K | * |
| C0853 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C0854-55 | NCB21EK-104AY | CHIP CAP. | 0.1 μ F 25V K | * |
| C0856 | QETN1CM-476Z | E CAP. | 47 μ F 16V M | * |
| C0857 | QETN1HM-475Z | E CAP. | 4.7 μ F 50V M | * |
| C0858 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0859-64 | NCT03CH-220AY | CHIP CAP. | 22 p F 1600V H | * |
| C0865 | QETN1HM-106Z | E CAP. | 10 μ F 50V M | * |
| C0866-71 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0872 | QEN61HM-105Z | BP E CAP. | 1 μ F 50V M | * |
| C0873-74 | NCF21EZ-104AY | C CAP. | 0.1 μ F 25V Z | * |
| C0875 | QEN61HM-105Z | BP E CAP. | 1 μ F 50V M | * |
| TRANSFORMER | | | | |
| T0001 | QOR0626-001 | I. F. TRANSF. | | * |
| T0101 | CELT001-306 | C. WAVE TRANSF. | | * |
| T0102 | CELT040-301 | S. I. F. TRANSF. | | * |
| T0103 | CELT001-307 | C. WAVE TRANSF. | | * |
| COIL | | | | |
| L0001 | CE41131-270Y | CHIP INDUCTOR | 27 μ H | * |
| L0002-03 | CE41131-8R2Y | INDUCTOR | 8.2 μ H | * |
| L0004 | CE41131-100Y | INDUCTOR | 10 μ H | * |
| L0100 | CELP041-R47 | PEAKING COIL | 0.47 μ H | * |
| L0102 | CE41131-1R5Y | INDUCTOR | 1.5 μ H | * |
| L0103 | CE41131-120Y | INDUCTOR | 12 μ H | * |
| L0104-06 | CE41131-8R2Y | INDUCTOR | 8.2 μ H | * |
| L0107 | CE41131-2R2Y | INDUCTOR | 2.2 μ H | * |

| △ Symbol No. | Part No. | Part Name | Description | Local |
|----------------------------|-----------------|------------------|--------------------|-------|
| L0108 | CE41131-8R2Y | INDUCTOR | 8.2 μ H | * |
| L0109 | CE41131-5R6Y | INDUCTOR | 5.6 μ H | * |
| L0151-52 | CE41131-100Y | INDUCTOR | 10 μ H | * |
| L0153 | CE41131-5R6Y | INDUCTOR | 5.6 μ H | * |
| L0160 | CE41131-100Y | INDUCTOR | 10 μ H | * |
| L0165-66 | CE41131-4R7Y | INDUCTOR | 4.7 μ H | * |
| L0801-03 | CE40344-4R7YL | INDUCTOR | 4.7 μ H | * |
| D I O D E | | | | |
| D0100-03 | 1SS85-T5 | SI. DIODE | | |
| T R A N S I S T O R | | | | |
| Q0100 | 2SC5083 (L-P)-T | SI. TRANSISTOR | | * |
| Q0101-04 | DTC144EKA-X | DIGI. TRANSISTOR | | |
| Q0105 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0106-07 | DTC144EKA-X | DIGI. TRANSISTOR | | |
| Q0108-09 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0160 | DTC144EKA-X | DIGI. TRANSISTOR | | |
| Q0161 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0162 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0163 | DTC144EKA-X | DIGI. TRANSISTOR | | |
| Q0164 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0166 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0167 | DTC144EKA-X | DIGI. TRANSISTOR | | |
| Q0168-69 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0170 | DTC144EKA-X | DIGI. TRANSISTOR | | |
| Q0171 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0600-01 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0801-04 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0805 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0806-07 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0808-09 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| I C | | | | |
| IC0101 | TA8865BN | I. C (MONO-ANA) | | |
| IC0102 | LA7975 | I. C (MONO-ANA) | | |
| IC0103 | TC4W66F-X | I. C. (DIGI-MOS) | | |
| IC0301 | TDA9141/N2 | I. C (MONO-ANA) | | |
| IC0302 | TDA4665 | I. C (MONO-ANA) | | * |
| IC0303 | LA7016 | I. C (MONO-ANA) | | * |
| IC0801 | SAB9077H/N4 | I. C | | |
| IC0802 | MSM548262-60-X | I. C (D-RAM) | | * |
| IC0803 | AN5860 | I. C (MONO-ANA) | | * |
| IC0804 | TC4066BF-W | I. C (DIGI-MOS) | | |
| IC0805 | CXA1875AM-X | I. C (MONO-ANA) | | |
| O T H E R S | | | | |
| CF0101 | CSB503F30-T2 | CER. RESONATOR | | * |
| CF0102-03 | FTP40.40MF | CERAMIC FILTER | | * |
| CF0160 | TPS5.5MW | CERAMIC FILTER | | * |
| CF0161-62 | SFE5.5MC2 | CERAMIC FILTER | | |
| CF0163-65 | SFE6.0MC | CERAMIC FILTER | | |
| CF0166 | CSB503E5 | CER. RESONATOR | | * |
| K0001 | CE41433-001Z | BEADS CORE | | * |
| △ R0603 | QR20054-470M | F R | 47 Ω 1/4W J | * |
| SF0100 | QAX0316-001 | SAW FILTER | | * |
| SF0101 | CE42574-702 | SAW FILTER | | |
| SF0102 | CE42606-701 | SAW FILTER | | |
| TU0001 | CEEK481-A01 | TUNER | | * |
| X0301 | CE40749-001Z | CRYSTAL | | * |
| X0302 | CE40668-001Z | CRYSTAL | | * |

P&P PW BOARD ASS'Y (SMB0P701B-U2)

[AV-32WP2EP(A)]

| △ Symbol No. | Part No. | Part Name | Description | Local |
|-------------------|---------------|-------------|-----------------|-------|
| VARIABLE RESISTOR | | | | |
| R0137 | QVPE611-103HZ | V R | 10kΩB(NOISE) | |
| RESISTOR | | | | |
| R0001 | QRD12CJ-474SX | C R | 470kΩ 1/2W J | * |
| CAPACITOR | | | | |
| C0001 | NCB21HK-222AY | CHIP CAP. | 2200 pF 50V K | * |
| C0002 | QETN1HM-106Z | E CAP. | 10 μF 50V M | * |
| C0003 | QETN1CM-227Z | E CAP. | 220 μF 16V M | * |
| C0004-05 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0007 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| C0008 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0100 | QETN1CM-227Z | E CAP. | 220 μF 16V M | * |
| C0102-04 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0106-07 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0108-09 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0110 | NCB21HK-222AY | CHIP CAP. | 2200 pF 50V K | * |
| C0111 | QETN1HM-335Z | E CAP. | 3.3 μF 50V M | * |
| C0112 | QFLC1HJ-683MZ | M CAP. | 0.068 μF 50V J | * |
| C0113 | QETN1HM-105Z | E CAP. | 1 μF 50V M | * |
| C0114 | NCB21HK-332AY | CHIP CAP. | 3300 pF 50V K | * |
| C0115 | QETN1HM-335Z | E CAP. | 3.3 μF 50V M | * |
| C0116 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| C0117 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0118 | NCT03CH-102AY | CHIP CAP. | 1000 pF 1600V H | * |
| C0119 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0120 | QETN1HM-105Z | E CAP. | 1 μF 50V M | * |
| C0121 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0122 | QAT3110-100A | TRIM CAP. | 10 pF 100V | * |
| C0123 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| C0124 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0126 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0127 | NCT03CH-7R0AY | CHIP CAP. | 7 pF 1600V H | * |
| C0128 | NCT03CH-120AY | CHIP CAP. | 12 pF 1600V H | * |
| C0129 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| C0130 | NCT03CH-102AY | CHIP CAP. | 1000 pF 1600V H | * |
| C0131 | QETN1HM-474Z | E CAP. | 0.47 μF 50V M | * |
| C0132 | NCT03CH-6R0AY | CHIP CAP. | 6 pF 1600V H | * |
| C0133-34 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0135 | QETN1HM-336Z | E CAP. | 33 μF 50V M | * |
| C0136 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0137 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0138 | QETN1HM-474Z | E CAP. | 0.47 μF 50V M | * |
| C0139 | QAT3110-100A | TRIM CAP. | 10 pF 100V | * |
| C0140 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0141 | NCT03CH-120AY | CHIP CAP. | 12 pF 1600V H | * |
| C0142 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0143-44 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0145 | QETN1HM-105Z | E CAP. | 1 μF 50V M | * |
| C0146-47 | NCB21HK-472AY | CHIP CAP. | 4700 pF 50V K | * |
| C0152 | NCT03CH-121AY | CHIP CAP. | 120 pF 1600V H | * |
| C0153 | NCT03CH-181AY | CHIP CAP. | 180 pF 1600V H | * |
| C0154-55 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0160 | QETN1CM-476Z | E CAP. | 47 μF 16V M | * |
| C0161 | NCT03CH-391AY | CHIP CAP. | 390 pF 1600V H | * |
| C0162 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0163 | QETN1CM-107Z | E CAP. | 100 μF 16V M | * |
| C0164-65 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0304 | NCB21HK-332AY | CHIP CAP. | 3300 pF 50V K | * |
| C0305 | NCF21EZ-474AY | CHIP C CAP. | 0.47 μF 25V Z | * |
| C0306 | QEN61HM-105Z | BP E CAP. | 1 μF 50V M | * |
| C0307 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0308 | NCB21HK-332AY | CHIP CAP. | 3300 pF 50V K | * |
| C0309 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |

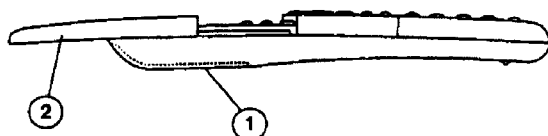
| △ Symbol No. | Part No. | Part Name | Description | Local |
|--------------------|-----------------|------------------|----------------|-------|
| CAPACITOR | | | | |
| C0310-11 | NCT03CH-120AY | CHIP CAP. | 12 pF 1600V H | * |
| C0312-16 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0317 | QETN1CM-477Z | E CAP. | 470 μF 16V M | * |
| C0318-20 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0321-23 | QETN1CM-476Z | E CAP. | 47 μF 16V M | * |
| C0601 | NCB21HK-183AY | CHIP CAP. | 0.018 μF 50V K | * |
| C0602 | QETN1CM-477Z | E CAP. | 470 μF 16V M | * |
| C0603 | NCB21HK-103AY | CHIP CAP. | 0.01 μF 50V K | * |
| C0604 | QETN1CM-476Z | E CAP. | 47 μF 16V M | * |
| C0605 | QETN1HM-106Z | E CAP. | 10 μF 50V M | * |
| C0606 | QETN1HM-105Z | E CAP. | 1 μF 50V M | * |
| C0801 | QETN1CM-476Z | E CAP. | 47 μF 16V M | * |
| C0802-12 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0813 | NCB21EK-104AY | CHIP CAP. | 0.1 μF 25V K | * |
| C0814-32 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0833 | NCB21EK-104AY | CHIP CAP. | 0.1 μF 25V K | * |
| C0834-40 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0841 | QETN1CM-476Z | E CAP. | 47 μF 16V M | * |
| C0842 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0843 | QETN1CM-476Z | E CAP. | 47 μF 16V M | * |
| C0844 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0845 | QETN1CM-476Z | E CAP. | 47 μF 16V M | * |
| C0846 | NCT03CH-390AY | CHIP CAP. | 39 pF 1600V H | * |
| C0850 | QETN1HM-106Z | E CAP. | 10 μF 50V M | * |
| C0851-52 | NCB21EK-104AY | CHIP CAP. | 0.1 μF 25V K | * |
| C0853 | QETN1HM-106Z | E CAP. | 10 μF 50V M | * |
| C0854-55 | NCB21EK-104AY | CHIP CAP. | 0.1 μF 25V K | * |
| C0856 | QETN1CM-476Z | E CAP. | 47 μF 16V M | * |
| C0857 | QETN1HM-475Z | E CAP. | 4.7 μF 50V M | * |
| C0858 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0859-64 | NCT03CH-220AY | CHIP CAP. | 22 pF 1600V H | * |
| C0865 | QETN1HM-106Z | E CAP. | 10 μF 50V M | * |
| C0866-71 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0872 | QEN61HM-105Z | BP E CAP. | 1 μF 50V M | * |
| C0873-74 | NCF21EZ-104AY | C CAP. | 0.1 μF 25V Z | * |
| C0875 | QEN61HM-105Z | BP E CAP. | 1 μF 50V M | * |
| TRANSFORMER | | | | |
| T0001 | QQR0626-001 | I. F. TRANSF. | | * |
| T0101 | CELT001-306 | C. WAVE TRANSF. | | * |
| T0102 | CELT040-301 | S. I. F. TRANSF. | | * |
| T0103 | CELT001-307 | C. WAVE TRANSF. | | * |
| COIL | | | | |
| L0001 | GE41131-270Y | CHIP INDUCTOR | 27 μH | * |
| L0002-03 | GE41131-8R2Y | INDUCTOR | 8.2 μH | * |
| L0004 | GE41131-100Y | INDUCTOR | 10 μH | * |
| L0100 | CELP041-R47 | PEAKING COIL | 0.47 μH | * |
| L0102 | GE41131-1R5Y | INDUCTOR | 1.5 μH | * |
| L0103 | GE41131-120Y | INDUCTOR | 12 μH | * |
| L0104-06 | GE41131-8R2Y | INDUCTOR | 8.2 μH | * |
| L0107 | GE41131-2R2Y | INDUCTOR | 2.2 μH | * |
| L0108 | GE41131-8R2Y | INDUCTOR | 8.2 μH | * |
| L0109 | GE41131-5R6Y | INDUCTOR | 5.6 μH | * |
| L0151-52 | GE41131-100Y | INDUCTOR | 10 μH | * |
| L0153 | GE41131-5R6Y | INDUCTOR | 5.6 μH | * |
| L0160 | GE41131-100Y | INDUCTOR | 10 μH | * |
| L0165-66 | GE41131-4R7Y | INDUCTOR | 4.7 μH | * |
| L0801-03 | GE40344-4R7YL | INDUCTOR | 4.7 μH | * |
| DIODE | | | | |
| D0100-04 | 1SS85-T5 | SI. DIODE | | * |
| TRANSISTOR | | | | |
| Q0100 | 2SC5083 (L-P)-T | SI. TRANSISTOR | | * |
| Q0101-04 | DTC144EKA-X | DIGI. TRANSISTOR | | * |

| △ Symbol No. | Part No. | Part Name | Description | Local |
|----------------------------|----------------|------------------|-------------|-------|
| T R A N S I S T O R | | | | |
| Q0105 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0106-07 | DTC144EKA-X | DIGI. TRANSISTOR | | * |
| Q0108-09 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0160 | DTC144EKA-X | DIGI. TRANSISTOR | | * |
| Q0161 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0162 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0163 | DTC144EKA-X | DIGI. TRANSISTOR | | * |
| Q0164 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0166 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0167 | DTC144EKA-X | DIGI. TRANSISTOR | | * |
| Q0168-69 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0170 | DTC144EKA-X | DIGI. TRANSISTOR | | * |
| Q0171 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0600-01 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0801-04 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0805 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| Q0806-07 | 2SA1162 (YG)-X | SI. TRANSISTOR | | * |
| Q0808-09 | 2SC2712 (YG)-X | SI. TRANSISTOR | | * |
| I C | | | | |
| IC0101 | TA8865BN | I. C. (MONO-ANA) | | |
| IC0102 | LA7975 | I. C. (MONO-ANA) | | |
| IC0103 | TC4W66F-X | I. C. (DIGI-MOS) | | |
| IC0301 | TDA9141/N2 | I. C. (MONO-ANA) | | |
| IC0302 | TDA4665 | I. C. (MONO-ANA) | | * |
| IC0303 | LA7016 | I. C. (MONO-ANA) | | * |
| IC0801 | SAB9077H/N4 | I C | | |
| IC0802 | MSM548262-60-X | I. C. (D-RAM) | | * |
| IC0803 | AN5860 | I. C. (MONO-ANA) | | * |
| IC0804 | TC4066BF-W | I. C. (DIGI-MOS) | | |
| IC0805 | CXA1875AM-X | I. C. (MONO-ANA) | | |
| O T H E R S | | | | |
| CF0101 | CSB503F30-T2 | CER. RESONATOR | | * |
| CF0102-03 | FTP40. 40MF | CERAMIC FILTER | | * |
| CF0160 | TPS5. 5MW | CERAMIC FILTER | | * |
| CF0161-62 | SFE5. 5MC2 | CERAMIC FILTER | | |
| CF0163-65 | SFE6. 0MC | CERAMIC FILTER | | |
| CF0166 | CSB503E5 | CER. RESONATOR | | * |
| K0001 | CE41433-001Z | BEADS CORE | | * |
| △ R0603 | QRZ0054-470M | F R | 47 Ω 1/4W J | * |
| SF0100 | QAX0316-001 | SAW FILTER | | * |
| SF0101 | CE42574-702 | SAW FILTER | | |
| SF0102 | CE42606-701 | SAW FILTER | | |
| TU0001 | CEEK481-A01 | TUNER | | * |
| X0301 | CE40749-001Z | CRYSTAL | | * |
| X0302 | CE40668-001Z | CRYSTAL | | * |

AUTO ASPECT MODULE PW BOARD ASS'Y [SJF0W001A(U)]

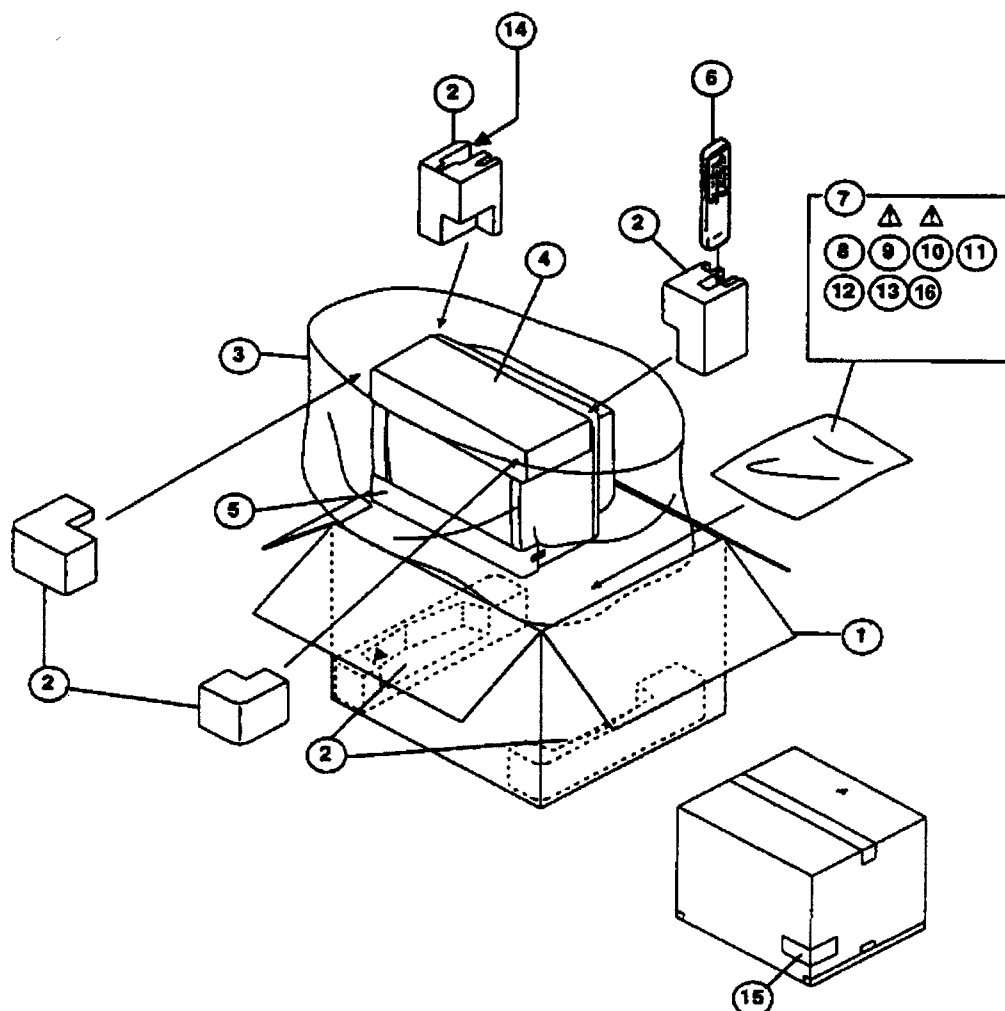
| △ Symbol No. | Part No. | Part Name | Description | Local |
|--------------|---------------|-----------------------|-------------|-------|
| | SJF0W001A (U) | AUTO ASPECT MODULE PW | | |

REMOTE CONTROL UNIT PARTS LIST(RM-C791-1E)



| △ Ref. No. | Part No. | Part Name. | Description | Local |
|------------|------------|---------------|-------------|-------|
| 1 | BGV110201A | BATTERY COVER | | * |
| 2 | BGV110305A | SLIDE COVER | | * |

PACKING



PACKING PARTS LIST

| △ Ref. No. | Part No. | Part Name | Description | Local |
|------------|----------------|-----------------|---------------------|-------|
| 1 | AEM1002-A43-E | PACKING CASE | | * |
| 2 | CP11549-00B-E | PACKING CUSHION | | * |
| 3 | AEM1004-A07-E | SET COVER | | * |
| 4 | AEM3022-003-E | CUSHION SHEET | | * |
| 5 | AEM3022-004-E | CUSHION SHEET | AV-32WP2EP (A) | * |
| 6 | CP40193-010-E | CUSHION SHEET | AV-32WP2EN (A) | * |
| 7 | RM-C791-1E | REMOCON UNIT | | * |
| 8 | AEM3021-001-E | POLY BAG | | * |
| △ 8 | BT-20066A-E | ADDRESS CARD | | * |
| △ 9 | CQ40353-001-E | INST. BOOK | | * |
| △ 10 | CQ40352-001-E | INST. BOOK | | * |
| 11 | BT-54008-1E | WARRANTY CARD | | * |
| 12 | CM22966-011-E | DEC. SHEET | | * |
| 13 | LCT0065-001A-U | WARNING SHEET | | * |
| 14 | AEEAK001-200 | RF CABLE | | * |
| 15 | AEM1038-060-E | EURO LABEL | | * |
| 16 | 32WP2ENA-HSAE | S. DIAGRAM | AV-32WP2EN (A) ONLY | * |

JVC

SPECIFICATIONS

| Model | AV-32WP2EP | AV-32WZ2EP | AV-28WZ2EP |
|--------------------------|---|---|---|
| Item | | | |
| TV RF systems | CCIR L, B/G, I | | |
| Colour systems | PAL, SECAM (NTSC 3.58 / 4.43 MHz only in EXT modes) | | |
| Channels and frequencies | F2-F10, F21-F69, E2-E12, E21-E69, S1-S41, X, Y, Z, Z+1, Z+2, A-H, H+1, H+2 * Receives French cable TV channel frequencies 116-172 MHz and 220-469MHz | | |
| Sound-multiplex systems | A2/NICAM (B/G, L) system | | |
| Teletext systems | Fastext (United Kingdom system) / TOP (German system) / WST (standard system) | | |
| Power requirements | AC 220 – 240 V, 50 Hz | | |
| Power consumption | Maximum 266 W, Average 161 W, Standby 0.8 W | Maximum 248 W, Average 151 W, Standby 0.8 W | Maximum 242 W, Average 147 W, Standby 0.8 W |
| Picture tube size | Visible area 76 cm (measured diagonally) | | Visible area 66 cm (measured diagonally) |
| Audio output | Rated Power output 20 W + 20 W + 5 W | Rated Power output 20 W + 20 W | |
| Speakers | 10 cm round x 2, 3.5 cm round x 2, (10 cm x 3 cm oval) x 1 | 10 cm round x 2, 3.5 cm round x 2 | |
| External input / output | EXT-1, EXT-2, EXT-3 | | 21-pin Euroconnector (SCART) |
| | EXT-4 | | VIDEO IN (RCA) AUDIO L / R IN (RCA) S-VIDEO IN (Mini Din 4-pin) |
| | AUDIO OUT | | (Variable out (0-1 Vrms), low impedance) CENTRE output (RCA) FRONT L/R output (RCA) SURROUND REAR L/R output (RCA) |
| | Headphone jack (stereo mini jack, dia. 3.5 mm) | | |
| Dimensions (W x H x D) | 805 mm x 550 mm x 550 mm | | 716 mm x 489 mm x 496 mm |
| Weight | 50.3 kg | 50.2 kg | 36.3 kg |
| Accessories | Remote control unit RM-C791 x 1 AAA (R03) dry cell battery x 2 | Remote control unit RM-C793 x 1 AAA (R03) dry cell battery x 2 | |

Design and specifications subject to change without notice.

Pictures displayed on the screen using this TV's image-processing functions should not be shown for any commercial or demonstration purpose in public places (tearooms and halls in hotels, etc.) without the consent of the owners of copyright of the original picture sources, as this constitutes an infringement of copyright.

JVC

VICTOR COMPANY OF JAPAN, LIMITED

COLOUR TELEVISION

AV-32WP2EN / EP AV-32WZ2EN / EP AV-28WZ2EN / EP

INSTRUCTIONS

Thank you for purchasing this JVC colour television.
To ensure your complete understanding, please read this manual thoroughly before operation.

WARNING:

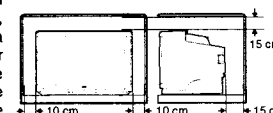
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

TO ENSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS UNIT.

1. Operate only from the power source specified (AC 220 - 240 V, 50 Hz) on the unit.
2. Avoid damaging the AC plug and power cord.
3. Avoid improper installation and never position the unit where good ventilation is unattainable.

When installing this television, distance recommendations must be maintained between the floor and wall, as well as instalment in a tightly enclosed area or piece of furniture. Adhere to the minimum distance guidelines shown for safe operation.



4. Do not allow objects or liquid into the cabinet openings.
5. In the event of a fault, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

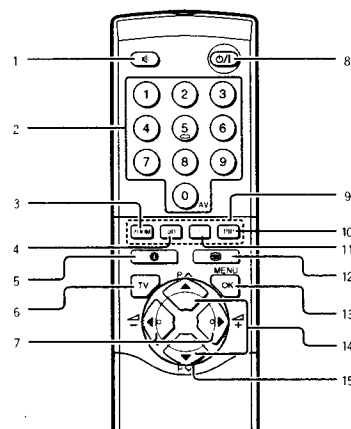
When you don't use this TV set for a long period of time, be sure to disconnect the power plug from the AC outlet.

CONTENTS

| | |
|---|----|
| Locations of remote control buttons | 2 |
| Locations of TV buttons and parts | 3 |
| PREPARATION AND BASIC OPERATION | 4 |
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| OTHER FEATURES | 16 |
| TELETEXT | 18 |
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| OTHER PREPARATION | 22 |
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| SPECIFICATIONS | 33 |

Locations of remote control buttons

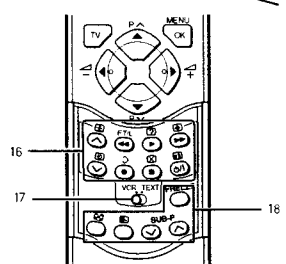
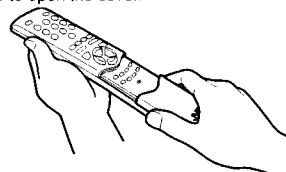
OUTSIDE BUTTONS



- | | |
|--|--------|
| ① Mute button | p.11 |
| ② Number buttons | p.7 |
| ③ ZOOM button | p.13 |
| ④ 3D button | p.20 |
| ⑤ Information button | p.16 |
| ⑥ TV button | |
| ⑦ Volume +/- buttons | p.8 |
| ⑧ Standby button | p.6, 8 |
| ⑨ Colour buttons | |
| ⑩ PIP button (AV-32WP2EN and AV-32WP2EP only.) | p.14 |
| ⑪ P. BASS button | p.11 |
| ⑫ TV/text button | p.18 |
| ⑬ OK button | |
| ⑭ PR channel V/Δ buttons | p.7 |
| ⑮ ◀/▶ / ▲/▼ buttons | |
| ⑯ Teletext/VCR control buttons | p.18 |
| ⑰ VCR/TEXT selector switch | |
| <ul style="list-style-type: none"> When switched to the VCR side, the ⑯ buttons function as the JVC VCR control buttons. | |
| Notes: | |
| <ul style="list-style-type: none"> For details on button functions, see the JVC VCR manual. Depending on your VCR, the remote control may not operate perfectly, and may not even control the VCR at all. When switched to the TEXT side, the ⑯ buttons function as teletext control buttons. | |
| ⑰ PIP control buttons (AV-32WP2EN and AV-32WP2EP only.) | p.14 |

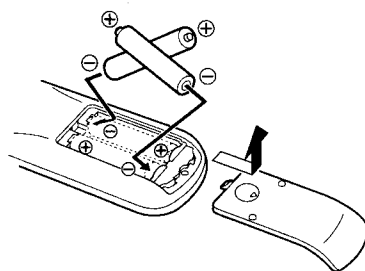
INSIDE BUTTONS

How to open the cover.



Inserting batteries into your remote control

Use two AAA/R03 dry cell batteries. Insert two batteries, observing the + and - polarities, inserting the - end first.



CAUTION:

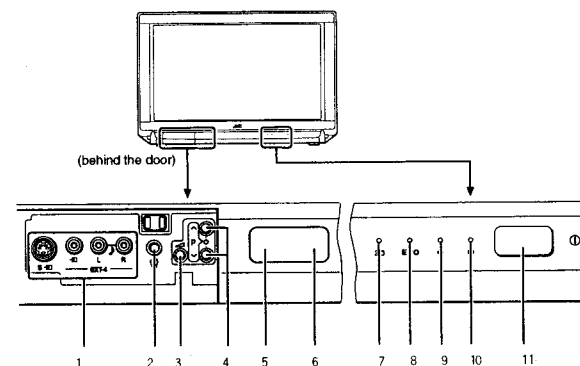
- Follow the cautions printed on the batteries.

Notes:

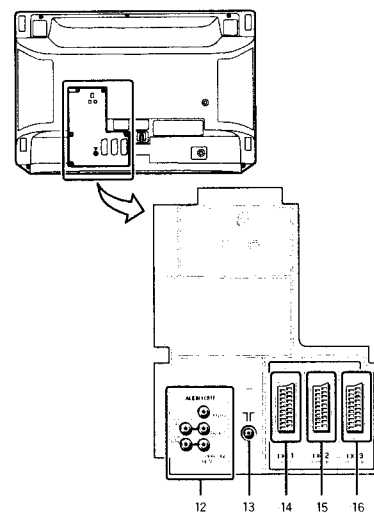
- Battery life is approx. six months to one year, depending on frequency of use.
- If the remote control operates erratically, replace the batteries.
- We recommend that you use the supplied batteries temporarily and replace them as soon as operation becomes erratic. The supplied batteries are for operational testing of the remote control, not for regular use.

Locations of TV buttons and parts

FRONT PANEL



REAR PANEL

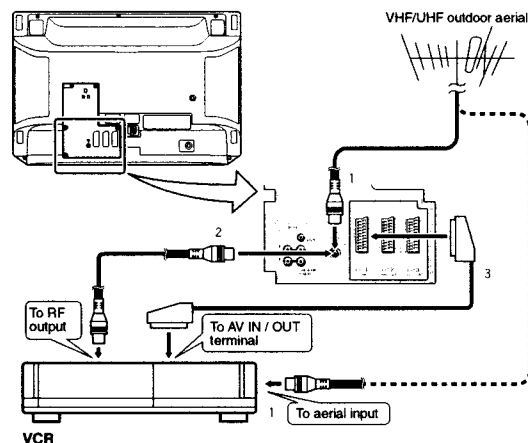


- | | |
|--|---------|
| ① EXT-4 terminals | p.4, 22 |
| ② Headphone jack (mini jack) | p.5 |
| ③ Volume button | p.9 |
| ④ Up/down buttons | p.9 |
| (You can use this button as the V/Δ buttons of the PR channel. Pressing the ③ Volume button makes this button function as the Volume +/- buttons.) | |
| ⑤ Remote control sensor | |
| ⑥ ECO sensor | |
| ⑦ 3D lamp | p.20 |
| ⑧ ECO lamp | p.12 |
| ⑨ Sleep timer lamp | p.16 |
| ⑩ Power lamp | p.6, 8 |
| ⑪ Main power button | p.6, 8 |
| ⑫ AUDIO OUT terminals | p.27 |
| ⑬ Aerial socket | p.4 |
| ⑭ EXT-1 terminal | p.4, 22 |
| ⑮ EXT-2 terminal | p.4, 22 |
| ⑯ EXT-3 terminal | p.4, 22 |

PREPARATION AND BASIC OPERATION

1. Connecting the aerial and VCR

If not connecting a VCR, do 1 only.
If connecting a VCR, proceed 1 → 2 → 3.



Notes:

- For further details, refer to manuals provided with the devices you are connecting.
- Connecting cables are not supplied.
- You can view video from a VCR without doing 3. For details, refer to the manual provided with your VCR.
- Connect the S-VHS VCR to either the EXT-2 or EXT-3 connector. When the S-VHS VCR is connected to the EXT-1 connector, S-VIDEO input can not be selected.

2. Connecting other external devices

Conditions:

- This TV set has external device connectors, EXT-1 to EXT-4 to which you can connect a VCR. However, there are some differences in functions among them. Consult the following table before making connections.

| | EXT-1 | EXT-2 | EXT-3 | EXT-4 (front) |
|-------------|---|-------|-------|---------------|
| VIDEO IN | √ | √*1 | √*1 | √*1 |
| VIDEO OUT | √*2 | √*3 | — | — |
| S-VIDEO IN | — | √*1 | √*1 | √*1 |
| S-VIDEO OUT | — | — | — | — |
| RGB IN | √ | — | — | — |
| AUDIO-L IN | √ | √ | √ | √ |
| AUDIO-R IN | √ | √ | √ | √ |
| AUDIO-L OUT | √*2 | √*3 | — | — |
| AUDIO-R OUT | √*2 | √*3 | — | — |
| Others | * Automatic detection and switching of input mode. * Automatic detection and switching of ZOOM mode. | | | |

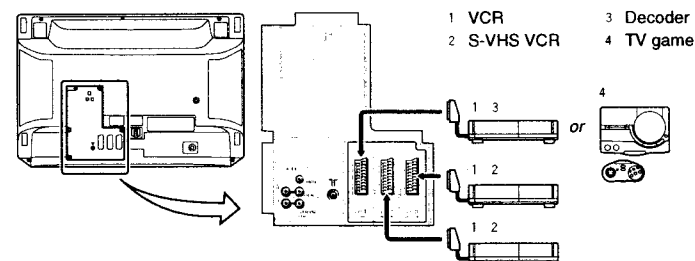
*1 Select VIDEO or S-VIDEO mode from the EXT SETTING menu. For details, see page 22 "EXT SETTING".

*2 Only the TV broadcast is output. Even when a SUB picture is displayed, the output TV broadcast PR channel does not change. However, when another PR channel is being watched in the SUB picture, if the SWAP function is used the output TV broadcast PR channel is switched.

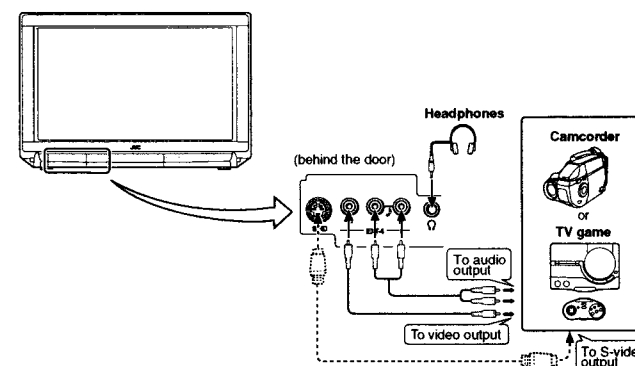
*3 TV broadcasts or inputs from EXT-1, 3 or 4 can be output. For details, see page 22 "DUBBING".

- Use headphones with a stereo mini jack (dia. 3.5 mm). When using headphones, refer to "To listen to the sound using headphones" on page 8.
- For further details, refer to manuals provided with the devices you are connecting.
- Connecting cables are not supplied.
- For details on how to connect the AUDIO OUT terminals on your TV and external devices such as the audio amplifiers or speakers, see page 27.

Devices which can be connected to the terminals on the rear panel

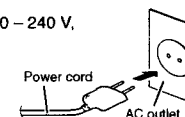


Devices which can be connected to the terminals on the front panel



3. Connecting the power cord

Insert the power plug into an AC outlet (AC 220 – 240 V, 50 Hz).



PREPARATION AND BASIC OPERATION

4. Turning the power and TV on

1. Press the Main power button on the TV to turn the power on.

-  ① The Power lamp lights red (power on), then green (TV on).

If the power lamp stays red and does not change to green:
Your TV is in the standby mode. Press the Standby button on the remote control to turn your TV on.

Note:

- You can also press the PR channel ∇/Δ button, a number button or the up/down button on the front panel to turn the TV on.

5. Initial Settings

- When the TV is first turned ON, it enters into the initial setting mode, and the JVC logo is displayed.

Note:

- The TV enters into the initial setting mode only once when the TV is first turned ON. If you turn the TV off or exit from the setting menu while performing the initial settings by mistake, you must redo the initial settings, "LANGUAGE" and "AUTO PROGRAM", following the procedures described in page 23.

1. Press any button on the remote control.

Language menu appears.

Selecting the on-screen language

You can select your language from ten languages listed on the LANGUAGE menu. The displayed menus on the screen are described in the selected language.

2. Press ∇/Δ button to select ENGLISH.



Note:

- In this manual, operation procedures are explained in English as the on-screen language is set to ENGLISH. If you select "FRANÇAIS" from the LANGUAGE selection menu, menus are all described in French of course.

3. Press OK button.

English is set for the on-screen display description, and the COUNTRY menu appears.

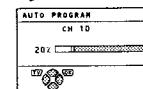


Automatically allocating stations to PR channels

To view a TV programme, you must first allocate broadcast stations to PR channels. You can automatically allocate up to 99 stations to PR channels PR1 to PR 99 on this TV. Broadcast stations that can be received are automatically determined and set to PR channels.

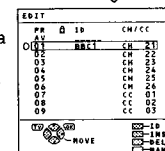
4. Press ∇/Δ and \leftarrow/\rightarrow button to select your country, then press blue button.

Broadcast stations are automatically allocated to the PR channels.



The EDIT menu is displayed after completed the allocation.

- If you want to edit PR channels or allocate a station to PR0 (AV) channel, see page 24 "EDIT/MANUAL" for procedural description.

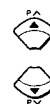


- The procedure is complete. Press the TV button to exit the menu.

6. Viewing a television programme

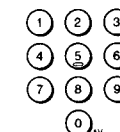
1. Select a PR channel.

Selection



- Press the PR channel ∇/Δ button.

Direct channel selection

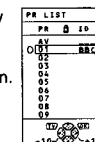


- Press the corresponding number buttons.
Example: To select channel 6, press "6".
To select channel 12, press "1" and "2".

To use the PR LIST to select a PR channel

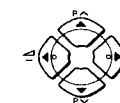


- Press Information button repeatedly to select PR LIST.
The PR LIST appears.
- To exit the PR LIST, press TV button.

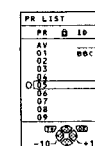


Notes:

- If the picture is not clear or no colour appears, change the colour system manually (see page 11 for details).
- Enter "0" when selecting an AV channel (PR 0 channel).
- If your TV is AV-32WP2EN or AV-32WP2EP, the MULTI-PICTURE function can be used to select a PR channel. For details, refer to "MULTI-PICTURE" on page 15.



- Press ∇/Δ button to select a PR channel.
- Press \rightarrow button to view the next page of the PR LIST.
- Press \leftarrow button to view the previous page of the PR LIST.



Note:

- The CHILD mark will appear on the PR channel when the CHILD LOCK setting is on (see page 17).

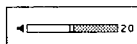


- Press OK button.

PREPARATION AND BASIC OPERATION

2. Press the Volume \pm button.

The Volume level indicator appears and the volume changes as you press the Volume \pm buttons.



Turning the TV and power off

1. Press the Standby button to turn the TV off.

The Power lamp changes from green to red.
The TV enters standby mode.



2. Press the Main power button on the TV to turn the main power off.

The Power lamp goes off.



Note:
• To save energy, we recommend that you turn the main power off if you do not plan to use your TV for a long time.

To listen to the sound using headphones

Condition:
Connect headphones to the TV.

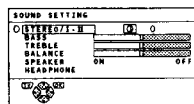
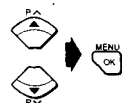
1. Press OK button.

The MENU appears.



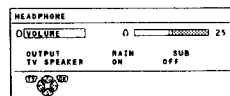
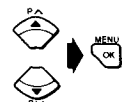
2. Press ∇/Δ button to select SOUND SETTING, then press OK button.

The SOUND SETTING menu appears.

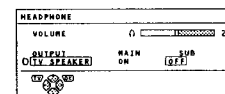
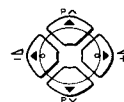


3. Press ∇/Δ button to select HEADPHONE, then press OK button.

The HEADPHONE menu appears.



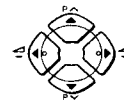
4. Press ∇/Δ button to select TV SPEAKER, then press \leftarrow/\rightarrow button to select ON or OFF.



ON: The sound from the TV speakers is not turned off even when the headphones are connected.
OFF: The sound from the TV speakers is turned off when the headphones are connected.

Note:
• The sound output from the AUDIO OUT terminals can not be turned off.

5. Press ∇/Δ button to select VOLUME, then press \leftarrow/\rightarrow button to adjust the volume of the headphones.



6. Press OK button.

This completes the setting.

To select a channel without using the remote control

You can also use the buttons on the front panel of the TV.

1. Press the Up/down button to turn your TV on.



The Power lamp changes from red to green.

Note:
• If your TV does not turn on, press the Main power button, and then press the Up/down button again.

2. Press the Up/down button to select the PR channel.

3. Adjust the volume.



1. Press the Volume button.
The volume level indicator appears.
2. Press the Up/down button while the volume level indicator is displayed.

• To turn off your TV, press the Main power button.




The Power lamp goes off.

Note:
• PR channel selection is not available while the volume level indicator is displayed.

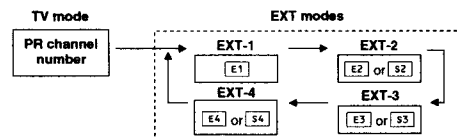
PREPARATION AND BASIC OPERATION

Viewing images from external devices

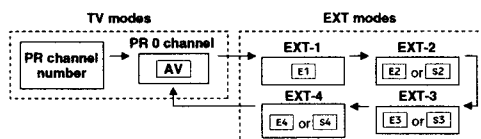
1. Repeatedly press the 0 button to select the EXT terminal.

 The current selection appears, and disappears after several seconds.

When a station is not registered to the PR 0 (AV) channel, pressing the 0 button changes the selection as follows:



When a station is registered to the PR 0 (AV) channel, pressing the 0 button changes the selection as follows:



TV mode:

Shows images input from an external device (such as a VCR) or TV aerial connected to the aerial socket of your TV.

EXT modes:

Shows images input from an external device (such as a VCR) connected to the selected EXT terminal.

- To use S-Video mode to view input from an S-VHS VCR, see "To select S-VIDEO input for a terminal" on page 22. When selecting EXT-2, EXT-3 or EXT-4 input terminals as S-VIDEO input, E2, E3 or E4 changes to S2, S3 or S4 in the display.

Notes:

- If the picture is not clear or no colour appears, change the colour system manually (see page 11).
- When selecting an EXT terminal with no input signal, the EXT number and ID become fixed on screen.

SOUND AND PICTURE

MUTE

You can mute the volume to 0 instantly. This is convenient when answering the phone or when receiving visitors.

1. Press (Mute).

The sound is muted.



To restore the sound:
Press the Mute button again.

POWER BASS

You can enjoy richness and fullness of the bass sound.

1. Press P. BASS.

The POWER BASS turns on.

P. BASS



To cancel the function:
Press the P. BASS button again.



MULTI SOUND

You can select the multi sound mode for stereo broadcast programmes and bilingual programmes.

Note:

- The MULTI SOUND function has no effect on programmes other than A2 or NICAM broadcast programmes.

1. Press OK.

The MENU appears.



2. Press to select SOUND SETTING, then press OK.

The SOUND SETTING menu appears.



3. Press to select STEREO / I + II.

Notes:

- The multi sound mode display is different from the broadcast programme.
- The multi sound function does not work in EXT modes.
- The STEREO / I+II does not appear in SOUND SETTING menu.

4. Press to select a multi sound mode.

- I : Stereo sound
- II : Bilingual I (Sub I)
- III : Bilingual II (Sub II)
- 0 : Normal sound

5. Press OK.

This completes the setting.

Note:

- When you display the current PR channel number, the current multi sound mode appears for approximately 3 seconds.

TINT

You can choose from among three TINT modes.

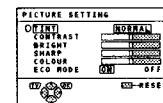
1. Press OK.

The MENU appears.

2. Press to select PICTURE SETTING, then press OK.

The PICTURE SETTING menu appears.

3. Press to select TINT.



4. Press to select a tint mode.

COOL:

A cool white colour base with a boost in the colour and contrast levels. Creating a more vivid picture.

WARM:

Use this mode when viewing film programmes.

NORMAL:

A normal white colour base with no boost in the colour or contrast levels.

5. Press OK.

This completes the setting.

COLOUR SYSTEM

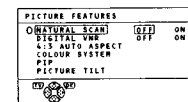
The colour system is automatically selected, but if the picture is not clear or no colour appears, select the colour system manually.

1. Press OK.

The MENU appears.

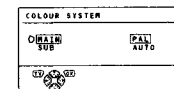
2. Press to select PICTURE FEATURES, then press OK.

The PICTURE FEATURES menu appears.



3. Press button to select COLOUR SYSTEM, then press OK.

The COLOUR SYSTEM menu appears.



4. Press button to select MAIN or SUB.

- If your TV is not AV-32WP2EN or AV-32WP2EP, the SUB will not appear. So you can skip this operation.

MAIN:

You can select the colour system of MAIN picture.

SUB:

You can select the colour system of SUB picture.

5. Press to select the appropriate colour system.

PAL:

PAL system.

SECAM:

SECAM system.

NTSC3.58:

NTSC 3.58 MHz system.

NTSC4.43:

NTSC 4.43 MHz system.

AUTO:

Automatic colour system selection.

SOUND AND PICTURE

Notes:

- Auto may not function properly depending on signal quality. If the picture is abnormal in AUTO mode, select another colour system manually.
- When in TV mode (PR 1 to PR 99), you cannot select AUTO, NTSC 3.58 or NTSC 4.43.
- When in TV mode (PR 0), you cannot select NTSC 3.58 or NTSC 4.43.

6. Press OK.

This completes the setting.

PICTURE/SOUND ADJUSTMENT

You can adjust the picture and sound as you like.

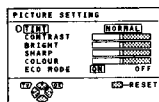
To adjust the picture

1. Press OK.

The MENU appears.

2. Press ∇/Δ to select PICTURE SETTING, then press OK.

The PICTURE SETTING menu appears.



3. Press ∇/Δ to select an item, and press \leftarrow/\rightarrow to adjust it.

- To return to the default settings, press blue button.

| ← | Item | → |
|---------|--------------------------------|----------|
| Lower | CONT. (picture contrast) | Higher |
| Darker | BRIGHT (picture brightness) | Brighter |
| Softer | SHARP (picture sharpness) | Sharper |
| Lighter | COLOUR (picture colour) | Deeper |
| Reddish | HUE (picture hue) | Greenish |

Notes:

- You can adjust the HUE (picture hue) only when the colour system is NTSC 3.58 or NTSC 4.43.

4. Press OK.

This completes the setting.

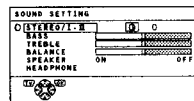
To adjust the sound

1. Press OK.

The MENU appears.

2. Press ∇/Δ to select SOUND SETTING, then press OK.

The SOUND SETTING menu appears.



Notes:

- When DOLBY* PRO LOGIC or PRO LOGIC 3D-PHONIC is selected in DIGITAL SURROUND menu, BALANCE and SPEAKER do not appear.

* Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby", the double-D symbol and "Pro Logic" are trademarks of Dolby Laboratories Licensing Corporation.

3. Press ∇/Δ to select an item, and press \leftarrow/\rightarrow to adjust it.

| ← | Item | → |
|--------|----------------------------------|----------|
| Weaker | BASS (low frequency sound) | Stronger |
| Weaker | TREBLE (high frequency sound) | Stronger |
| Left | BALANCE (audio balance) | Right |

SPEAKER ON/OFF:

Use this function if you connect an audio amplifier and front speakers to your TV. If you set this function to OFF, sound is no longer output from the TV's speakers. For details, see "To use 2 external speakers" on page 27.

4. Press OK.

This completes the setting.

ECO MODE

When you set ECO mode to ON, the screen contrast is automatically adjusted to a setting suitable for the brightness of your room. This reduces eye strain and the power consumption of the TV.

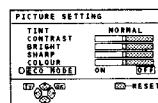
1. Press OK.

The MENU appears.

2. Press ∇/Δ to select PICTURE SETTING, then press OK.

The PICTURE SETTING menu appears.

3. Press ∇/Δ to select ECO.



4. Press \leftarrow/\rightarrow to select ON, OFF.

5. Press OK.

This completes the setting.

- If you turned on ECO mode, the ECO lamp lights.

NATURAL SCAN

When you set NATURAL SCAN to ON, you can remove the horizontal line vibration on the screen so improving picture stability further.

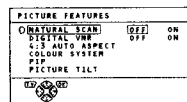
1. Press OK.

The MENU appears.

2. Press ∇/Δ to select PICTURE FEATURES, then press OK.

The PICTURE FEATURES menu appears.

3. Press ∇/Δ to select NATURAL SCAN.



4. Press \leftarrow/\rightarrow to select ON, OFF.

5. Press OK.

This completes the setting.

DIGITAL VNR

When you set DIGITAL VNR to ON, you can reduce the noise on the screen so improving picture quality further.

1. Press OK.

The MENU appears.

2. Press ∇/Δ to select PICTURE FEATURES, then press OK.

The PICTURE FEATURES menu appears.

3. Press ∇/Δ to select DIGITAL VNR.



4. Press \leftarrow/\rightarrow to select ON, OFF.

5. Press OK.

This completes the setting.

ZOOM

Select a ZOOM mode to change the picture format. You can enlarge the picture to fill the wide TV screen (16:9 aspect ratio). In addition, you can stretch a normal picture (4:3 aspect ratio) to fill the wide TV screen.

Notes:

- The picture format information of the present broadcasting programme may be received as WSS (Wide Screen Signalling). When AUTO mode is selected for ZOOM mode and the WSS signal is received, this TV automatically selects the optimum ZOOM mode corresponding to the WSS signal. However, in the case of weak WSS signal reception, this function may not work correctly. In this case, select an optimum ZOOM mode manually.
- If the EXT-1, EXT-2 or EXT-3 terminal's input is from a picture signal with a 16:9 aspect ratio picture format, the ZOOM mode may automatically changes to FULL mode. This is because the TV detects an identification signal which is not an WSS signal.

Manual ZOOM selection

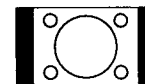
you can select a desired ZOOM mode manually.

1. Press ZOOM repeatedly to select a ZOOM mode.

The picture expands.

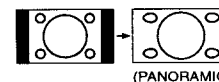
REGULAR mode:

Use to view a normal picture (4:3 aspect ratio) unchanged.



PANORAMIC mode:

Stretches the left and right sides of a normal picture to fill the screen, in a way that does not appear unnatural.

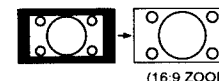


Notes:

- In PANORAMIC mode, the top and bottom of the picture are slightly cut off.

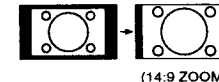
16:9 ZOOM mode:

Use to expand a wide picture (16:9 aspect ratio).



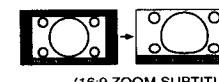
14:9 ZOOM mode:

Use to expand a picture with a 14:9 aspect ratio.



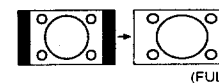
16:9 ZOOM SUBTITLE mode:

Use to expand a picture with a 16:9 aspect ratio having subtitles at the bottom of the screen.



FULL mode:

Uniformly stretches the left and right sides of a normal picture (4:3 aspect ratio) to fill the wide TV screen.



Notes:

- For pictures with a 16:9 aspect ratio that have been squeezed into a normal picture (4:3 aspect ratio), select FULL mode to restore their original dimensions.

To move the picture vertically:

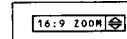
If you cannot see subtitles at the bottom of the screen, or if the top or bottom is cut off, move the picture vertically.

Notes:

- You cannot move the picture vertically in AUTO, REGULAR and FULL mode.

1. Press ZOOM.

The current ZOOM mode is displayed.



2. Before the display disappears, press ∇/Δ to move the picture up or down.

Notes:

- If you change the ZOOM mode, the picture returns to its default position.

Automatic ZOOM selection (AUTO mode)

You can set your TV to automatically select the optimum ZOOM mode to suit the picture format.

1. Press ZOOM repeatedly to select AUTO.

Your TV automatically selects the optimum ZOOM mode to suit the current programme's picture format.

Notes:

- This function may not work correctly depending on the programme. In this case, select the optimum ZOOM mode manually.

(Continued to the next page)

SOUND AND PICTURE

To preset a ZOOM mode for the normal picture:

You can preset one of three ZOOM modes, REGULAR, PANORAMIC or 14:9 ZOOM, as the ZOOM mode for the normal picture (4:3 aspect ratio).

1. Press OK.

The MENU appears.

2. Press ∇/Δ to select PICTURE FEATURES, then press OK.

The PICTURE FEATURES menu appears.

3. Press ∇/Δ to select 4:3 AUTO ASPECT, then press OK.

The 4:3 AUTO ASPECT menu appears.



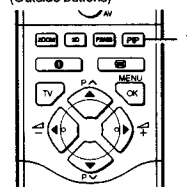
4. Press ∇/Δ to select a ZOOM mode.

5. Press OK.

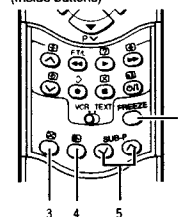
This completes the setting.

PIP (AV-32WP2EN, AV-32WP2EP only)

(Outside buttons)



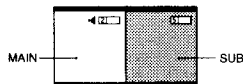
(Inside buttons)



- 1 PIP button
- 2 FREEZE button
- 3 Multi button
- 4 Swap button
- 5 SUB-P ∇/Δ button

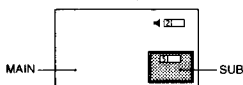
Twin pictures mode:

MAIN-picture is displayed on the left hand and SUB-picture is displayed on the right hand.



Picture in picture mode:

SUB-picture is displayed in Main picture.



2. Press SUB-P ∇/Δ to select the SUB-picture's PR channel or EXT mode.

To clear the SUB-picture:
Press the PIP button again.

Notes:

- The PR channel or EXT mode image which is the same as the MAIN-picture can not be selected.
- The movement of the Sub-picture image is not as smooth as that of the MAIN-picture image.
- If the MAIN-picture image signal condition is bad, the SUB-picture image may be disordered. If the MAIN-picture image signal condition is improved, the SUB-picture image also improves.
- If the picture standard of the MAIN-picture and SUB-picture are different, the top and bottom of one of them may be missing.
- If an external device is operated, the SUB-picture may disappear. If this happens, press the PIP button once more and redisplay the SUB-picture.
- If the SWAP button is pressed when the image from the external decoder is displayed in the MAIN-

picture, the same image is displayed in both the MAIN picture and SUB-picture. If the SWAP button is pressed once more, the previous state is returned to.

- In the Twin pictures mode, a horizontal line is displayed at the top of the screen. This is normal and is not a malfunction.

To change the position of SUB-picture in Picture in picture mode:

You can select the one of four positions of the SUB-picture in Picture in picture mode.

1. Press OK.

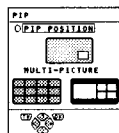
The MENU appears.

2. Press ∇/Δ to select PICTURE FEATURES, then press OK.

The PICTURE FEATURES menu appears.

3. Press ∇/Δ to select PIP, then press OK.

The PIP menu appears.



4. Press ∇/Δ to select PIP POSITION, then press \leftarrow/\rightarrow to select the position.

5. Press OK.

The menu disappears.

To listen to the sound of the SUB-picture

While listening to the sound of the main picture on the speakers, you can listen to the sound of SUB-picture on your headphones.

1. Press OK.

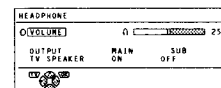
The MENU appears.

2. Press ∇/Δ to select SOUND SETTING, then press OK.

The SOUND SETTING menu appears.

3. Press ∇/Δ to select HEADPHONE, then press OK.

The HEADPHONE menu appears.



4. Press ∇/Δ to select TV SPEAKER, then press \leftarrow/\rightarrow to select ON or OFF.

ON:

Main picture sound from speakers while listening to the sound on your headphones.

OFF:

No sound from speakers

5. Press ∇/Δ to select OUTPUT, then press \leftarrow/\rightarrow to select SUB.

MAIN:

You can listen to the sound of MAIN picture on your headphones.

6. Press ∇/Δ to select VOLUME, then press \leftarrow/\rightarrow to adjust the volume of the headphones.

7. Press OK.

The menu disappears.

Notes:

- When the SUB-picture is in TV mode, the SUB-picture sound is monaural only.
- The Multi sound function does not work for the SUB-picture sound.
- Neither any of the surround sound functions or the POWER BASS function work for the SUB picture sound.

MULTI-PICTURE

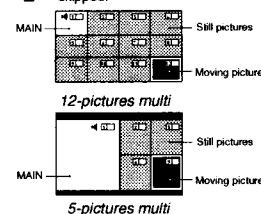
The PR channel and EXT mode images can be displayed as still pictures on the outside of the MAIN-picture, and the image which you want to see can be selected from these still pictures and seen as the MAIN-picture.

1. Press the Multi button.

The PR channel and EXT mode images are displayed in the channel number order. Only the image which is displayed last is left as a moving picture. The other images change to still pictures.

Note:

- The MAIN-picture PR channel number or EXT mode number is skipped.



In order to display the next PR channel or EXT mode image:
Press the Multi button again.

To clear the Multi-pictures:
Press the TV button.

2. Press the ∇/Δ button or SUB P ∇/Δ button and select the PR channel or EXT terminal image that you want to see.

The selected image changes from a still picture to a moving picture.

3. Press OK.

The Multi-pictures disappear and the MAIN-picture image changes to the selected PR channel or EXT terminal image.

To select the multi-picture style

You can select one of two multi-picture's styles.

1. Press OK.

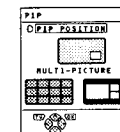
The MENU appears.

2. Press ∇/Δ to select PICTURE FEATURES, then press OK.

The PICTURE FEATURES menu appears.

3. Press ∇/Δ to select PIP, then press OK.

The PIP menu appears.



4. Press ∇/Δ to select MULTI-PICTURE, then press \leftarrow/\rightarrow to select a multi-picture's style.

5. Press OK.

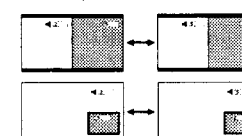
The menu disappears.

SWAP

You can swap MAIN and SUB-pictures

1. Press the Swap button.

Each time you press the Swap button, the MAIN picture and SUB-picture swap.



Notes:

- If the SWAP button is pressed when the image from the external decoder is displayed in the MAIN picture, the same image is displayed in both the MAIN picture and SUB picture. If the SWAP button is pressed once more, the previous state is returned to.
- When another PR channel is being watched in the SUB picture, if the SWAP function is used the TV broadcast PR channel, which is output from the EXT-1, EXT-2 or EXT-3 terminal, is switched.

FREEZE

You can view the MAIN-picture's frozen image as the SUB-picture.

1. Press FREEZE.

The main picture's frozen image (still picture) is displayed as the SUB-picture.



To cancel the FREEZE function:
Press the FREEZE button again.

BASIC OPERATION

You can select two types of PIP picture mode.

1. Press PIP repeatedly to select a PIP mode.

Two pictures are displayed in the same time.

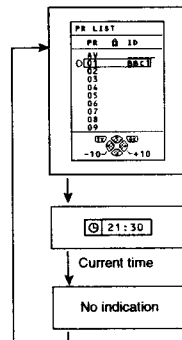
OTHER FEATURES

INFORMATION

You can display the PR LIST or the current time.

1. Press **○** (Information) repeatedly.

The display changes cyclically in the following order.



About PR LIST:

- Ten positions including the currently selected PR channel will be displayed as a list.
- Press **▼/▲** / **◀/▶** to select the desired PR channel. For details see page 7.

About the current time display:

This TV uses teletext data to determine the current time.

- If the TV has not received a station that has teletext data since it was turned on, the time display is blank.
- To view the current time, select a station that is broadcasting teletext data. As long as you do not turn off the TV, then even if you select other stations, the time will still be displayed.
- When watching videos, the wrong current time is sometimes displayed.

SLEEP TIMER

You can set the TV to automatically turn off after a specified period of time.

Note:

- The SLEEP TIMER does not turn off the Main power.

1. Press **OK**.
The MENU appears.
2. Press **▼/▲** to select **FEATURES**, then press **OK**.
The FEATURES menu appears.



3. Press **▼/▲** to select **SLEEP TIMER**, then press **OK**.
The SLEEP TIMER menu appears.



4. Press **◀/▶** to select a period of time.

You can set the period of time a maximum of 120 minutes in 10 minute increments.

OFF:

Turns off the SLEEP TIMER.

5. Press **OK**.

- The Sleep timer lamp lights if you set the SLEEP TIMER.

To display the remaining Sleep timer time:

Perform steps 1 to 3 to display the SLEEP TIMER menu, and press **OK** button when you finish checking the time.

To turn off the Sleep timer:

Perform steps 1 to 3 to display the SLEEP TIMER menu, press **◀** button to select "OFF", and then press **OK** button.

- The Sleep timer lamp goes out.

Note:

- One minute before the SLEEP TIMER turns off the TV, "GOOD NIGHT!" appears.

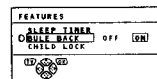
BLUE BACK

When viewing a PR channel with no or poor reception, or if there is no input from an external device, you can mute the sound and change the picture into a blue picture.

1. Press **OK**.
The MENU appears.
2. Press **▼/▲** to select **FEATURES**, then press **OK**.
The FEATURES menu appears.



3. Press **▼/▲** to select **BLUE BACK**.



4. Press **◀/▶** to select **ON** or **OFF**.

5. Press **OK**.

This completes the setting.

CHILD LOCK

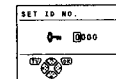
You can lock some PR channels to prevent your children from watching them.

To set the CHILD LOCK

1. Press **OK**.
The MENU appears.
2. Press **▼/▲** to select **FEATURES**, then press **OK**.
The FEATURES menu appears.



3. Press **▼/▲** to select **CHILD LOCK**, then press **0** button.
The SET ID NO. menu appears.

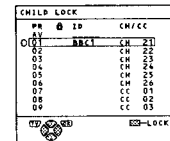


4. Enter the ID number.

1. Press **▼/▲** to select a number.
2. Press **◀/▶** to move the cursor.

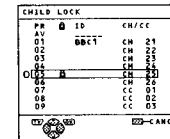
5. Press **OK**.

The CHILD LOCK menu appears.



6. Press **▼/▲** to select a PR channel, then press **blue** button.

The selected PR channel is locked.



- To cancel the CHILD LOCK: Press blue button again.
- Repeat step 6 to lock all PR channels which you want to lock.

7. Press **OK**.

This completes the setting.

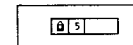
Notes:

- You cannot select a locked PR channel using the PR channel **V/A** buttons.
- Even if you can select a locked channel and display it, you can not view the programme of the locked channel.

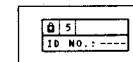
To view a locked PR channel

1. Select a locked PR channel.

- Use the number buttons to select the PR channel.
- The locked channel is displayed.



2. Press **○** (Information).
The ID NO. input menu appears.



3. Press the number buttons to enter the ID number.

You are now viewing the locked PR channel.

If you forget the ID number:

Perform steps 1 to 3 of "To set the CHILD LOCK". After you confirm the ID number, press the TV button to exit the menu.

DEMONSTRATION

The demonstration runs automatically and introduces the menus of this TV's main features.

1. Press **OK**.

The MENU appears.

2. Press **▼/▲** to select **DEMO**, then press **OK**.

The demonstration begins.

- To stop the demonstration, press any button on the remote control.

INDEX

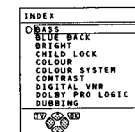
You can go to the desired function's menu directly from this INDEX menu.

1. Press **OK**.

The MENU appears.

2. Press **▼/▲** to select **INDEX**, then press **OK**.

The INDEX menu appears.



3. Press **▼/▲** to select the function you want to use, then press **OK**.

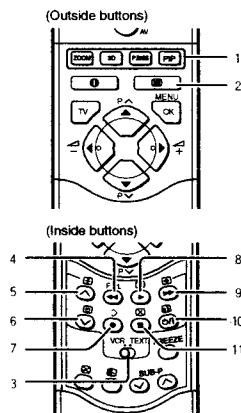
Your selected function's menu or the menu which includes your selected function appears.

- To return to the MENU, press the Information button.

TELETEXT

Note:

- If you have trouble receiving teletext broadcasts, consult your local dealer or the teletext station.



- Colour buttons
- TV/text button
- VCR/TEXT selector switch
 - When this switch is set to the TEXT side, the following buttons function as the teletext control button.
- MODE button
- HOLD button
- SUB PAGE button
- STORE button
- REVEAL button
- SIZE button
- INDEX button
- DISPLAY CANCEL button

BASIC TELETEXT OPERATION

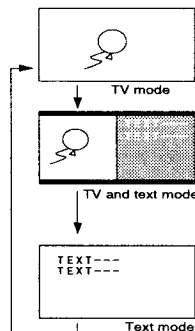
You can view three types of teletext broadcasts on the TV: Fastext, TOP and WST. The TV automatically recognizes the type of teletext broadcast.

Condition:

- The VCR/TEXT selector switch must already be set to the TEXT side.

- Select a channel with a teletext broadcast.

- Press (TV/text).



Note:

- If your TV is not AV-32WP2EN or AV-32WP2EP, the TV and Text mode can not be selected.
- The movement of the TV image in the TV and text mode is not as smooth as that in the TV mode.

- Select a page number.

Browse:

Press the PR channel ∇/Δ button on the remote control.

Direct selection:

Press the number buttons to enter a three-digit page number.

Colour button selection:

Press a colour button to select the corresponding page number on the bottom line of the screen.

Notes:

- Category names of teletext pages may appear instead of page numbers.
- In principle, ZOOM mode is fixed to FULL mode when you view Teletext programmes.
- Some Teletext programmes display a mixture of regular TV programmes and Teletext information. When viewing these programmes, ZOOM mode returns to the mode you selected before you started viewing Teletext programmes. With the ZOOM mode, the Teletext information may not be displayed in the correct position. If this happens, press the TV/Text button to cancel the Text mode, then press the ZOOM button to change the ZOOM mode to the PANORAMIC mode or FULL mode.

- To return to TV mode, press the TV/text button repeatedly.

Notes:

- You can also return to TV mode by pressing the TV button.
- None of the MENU operations are possible in the Text mode. Perform the MENU operation after pressing the TV/Text button to cancel the Text mode.
- In the TV and text mode, a horizontal line is displayed at the top of the screen. This is normal and is not a malfunction.

DISPLAY CANCEL

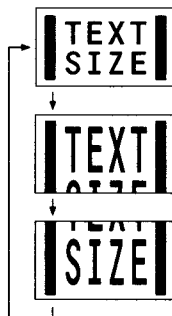
You can search for a teletext page while watching TV.

- Select a teletext page.
The TV searches for a teletext page.
- Press DISPLAY CANCEL.
The TV programme appears. When the TV finds the teletext page, its page number appears in the upper left of the screen.
- Press (TV/text) when the page number is on the screen.

SIZE

You can double the height of the teletext display.

- Press SIZE repeatedly.

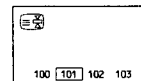


HOLD

You can hold a teletext page on the screen for a desired length of time, even while several other teletext pages are being received.

- Press HOLD.

is displayed in the upper left of the screen, and the teletext page is held on the screen.



To release hold mode:
Press HOLD button again.

INDEX

Just press INDEX button to return to the index page.

- Press INDEX.

Fastext/TOP/WST:

Returns to page 100 or a previously specified page.

LIST mode:

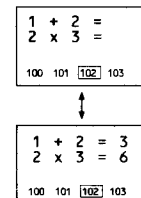
Returns to the page number displayed in the lower left area of the screen.

REVEAL

Some teletext pages include hidden text (such as answers to a quiz).

- Press REVEAL.

Each time you press REVEAL button, text is hidden or revealed.



LIST MODE

If you store the numbers of teletext pages you view often, you can quickly call up a desired teletext page whenever you like.

Note:

- You can store up to 64 pages in memory. You can store four pages in each channel from 1 to 15 (60 pages), and four pages that are the same for all channels above channel 15 (4 pages).

To store the page numbers

- Press MODE to engage LIST mode.
Stored page numbers are displayed at the bottom of the screen.
- Press a colour button, then enter the number of the teletext page.
To assign other pages to remaining colour buttons, repeat this operation.
- Press and hold STORE.
The four page numbers blink white to indicate that they are stored in memory.

To call up a stored page

- Press MODE to engage LIST mode.
Stored page numbers are displayed at the bottom of the screen.
To release LIST mode:
Press MODE button again.
- Press a colour button to which a page has been assigned.

SUB PAGE

Some teletext pages include sub-pages that are automatically displayed. You can hold any sub-page, or view it at any time.

- Call up a teletext page with sub-pages.
- Press SUB PAGE.

Sub-page numbers are displayed at the left of the screen.

Background colour of the sub-page number is yellow:

This is the number of the sub-page which is currently being displayed.

Background colour of the sub-page number is white:

These are the numbers of the sub-pages which can be displayed.

Background colour of the sub-page number is blue or red:

These are the numbers of sub-pages which have not been sent and can therefore not be displayed.

- Press ∇/Δ button to select a sub-page number.

SURROUND SOUND

DOLBY PRO LOGIC 3D-PHONIC

You can enjoy the ambience of Dolby Surround encoded programmes.

Condition:

- Before performing the procedure, disconnect headphones from the TV.

Note:

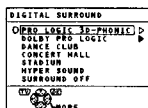
- This function works only with Dolby Surround encoded programmes.
- When operating this function, the TV's 3D lamp lights up.
- This function does not work correctly when listening to the sound with headphones.

1. Press OK.

The MENU appears.

2. Press ∇/Δ to select DIGITAL SURROUND, then press OK.

The DIGITAL SURROUND menu appears, showing the currently active function.



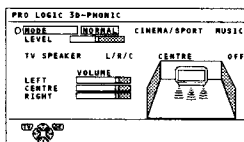
3. Press ∇/Δ to select PRO LOGIC 3D-PHONIC.

To cancel the function:

Select SURROUND OFF, then press the OK button.

4. Press \blacktriangleright .

The PRO LOGIC 3D-PHONIC menu appears.



5. Press ∇/Δ to select MODE.

6. Press $\blacktriangleleft/\blacktriangleright$ to select the desired mode.

NORMAL:

For normal programmes

CINEMA/SPORT:

For cinema and sports programmes

MUSIC:

For music programmes

To adjust the effect level:

Press the ∇/Δ button to select LEVEL, then press the $\blacktriangleleft/\blacktriangleright$ button to adjust the effect level.

To adjust the volume level of each speaker:

Press ∇/Δ button to select LEFT, CENTRE or RIGHT, then press the $\blacktriangleleft/\blacktriangleright$ button to adjust the volume level.

Note:

- Since models other than AV-32WP2EN and AV-32WP2EP do not have a centre speaker built-in to the TV, CENTRE can not be selected. However, when 2 external speakers are being used, the TV speakers can be used as the centre speaker, so CENTRE can be selected.

TV SPEAKER:

This setting is only changed when 2 external speakers are being used. For details, refer to "To use 2 external speakers" on page 27.

Note:

- When not using external speakers, leave the TV SPEAKER setting as L/R/C (L/R in the case of models other than AV-32WP2EN and AV-32WP2EP). Otherwise sound may not come out of the TV speakers or the sound may become monaural.

7. Press OK.

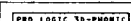
Note:

- If, while using this function, you connect headphones to your TV, the 3D HEADPHONE function (see next page) activates automatically. However, if SPEAKER is set to ON in the HEADPHONE menu, the 3D HEADPHONE function is not activated.

To turn on/off DOLBY PRO LOGIC 3D-PHONIC with one touch

1. Press 3D.

DOLBY PRO LOGIC 3D-PHONIC turns on.



Note:

- If 3D HEADPHONE appears, disconnect the headphones from the TV.

To cancel the function:

Press the 3D button again.



To return the previous surround function:

Press the 3D button twice.

DIGITAL SURROUND

You can enjoy any one of the four Digital Surround functions.

Condition:

- Before performing the procedure, disconnect headphones from the TV.

1. Press OK.

The MENU appears.

2. Press ∇/Δ to select DIGITAL SURROUND, then press OK.

The DIGITAL SURROUND menu appears, showing the currently active function.



3. Press ∇/Δ to select the desired function.

DANCE CLUB:

For the atmosphere of a dance club

CONCERT HALL:

For the atmosphere of a concert hall

STADIUM:

For the atmosphere of a stadium

HYPER SOUND:

To give monaural sound the spacious feeling of stereo sound

To cancel the function:

Select SURROUND OFF.

4. Press OK.

Notes:

- Only HYPER SOUND works well with monaural sound programmes.
- HYPER SOUND does not work well with stereo sound programmes.
- If, while using this function, you connect headphones to your TV, Headphone Surround (see next page) activates automatically. However, if SPEAKER is set to ON in the HEADPHONE menu, the HEADPHONE SURROUND function is not activated.

HEADPHONE SURROUND

You can enjoy surround sound on your headphones. You can enjoy any one of the four Headphone surround functions.

Condition:

- Before performing this procedure, connect headphones to the TV.

1. Press OK.

The MENU appears.

2. Press ∇/Δ to select HEADPHONE SURROUND, then press OK.

The HEADPHONE SURROUND menu appears, showing the currently active function.



If HEADPHONE SURROUND does not appear in the MENU, set SPEAKER in the HEADPHONE menu to OFF. For details, refer to "To listen to the sound using headphones" on page 8.

3. Press ∇/Δ to select the desired function.

3D HEADPHONE:

For a broad, atmospheric sound

DANCE CLUB:

For the atmosphere of a dance club

CONCERT HALL:

For the atmosphere of a concert hall

STADIUM:

For the atmosphere of a stadium

HYPER SOUND:

To give monaural sound the spacious feeling of stereo sound

To cancel the function:

Select SURROUND OFF.

4. Press OK.

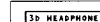
Note:

- HYPER SOUND does not work well with stereo sound programmes.

To turn the 3D HEADPHONE on/off with one touch

1. Press 3D.

3D HEADPHONE turns on.

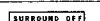


Note:

- If PRO LOGIC 3D-PHONIC is still displayed, set SPEAKER in the HEADPHONE menu to OFF.

To cancel the function:

Press the 3D button again.



To return the previous surround function:

Press the 3D button twice.

DOLBY PRO LOGIC SURROUND

You can also use Dolby Pro Logic Surround sound with 4 or 5 speakers. If you wish to use this system, additional amplifiers and speakers are required. For details, see "To use 4 or 5 speakers" on page 28.

Condition:

- Before performing the procedure, disconnect headphones from the TV.

1. Press OK.

The MENU appears.

2. Press ∇/Δ to select DIGITAL SURROUND, then press OK.

The DIGITAL SURROUND menu appears, showing the currently active function.



3. Press ∇/Δ to select DOLBY PRO LOGIC.

To cancel the function:
Select SURROUND OFF.

AV-32WZ2EN
AV-32WZ2EP
AV-28WZ2EN
AV-28WZ2EP

OTHER PREPARATION

EXT SETTING

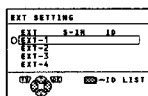
You can select S-VIDEO or normal input for the EXT-2, EXT-3 and EXT-4 terminals, and you can give an EXT ID to each EXT input terminal.

To select S-VIDEO input for a terminal

1. Press OK.
The MENU appears.
2. Press ∇/Δ to select EXT SOURCE, then press OK.
The EXT SOURCE menu appears.

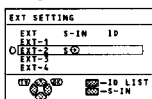


3. Press ∇/Δ to select EXT SETTING, then press OK.
The EXT SETTING menu appears.



4. Press ∇/Δ to select an EXT input terminal.

5. Press yellow button.
The S-VIDEO input indication appears.
- To select normal input, press yellow button again.

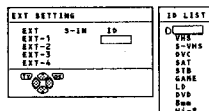


- If you want to set an EXT ID here, perform the operation procedures from the step 4 of the section "To give an EXT ID to an EXT input terminal" in the next column.

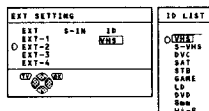
6. Press OK.
The menu disappears.

To give an EXT ID to an EXT input terminal

1. Press OK.
The MENU appears.
2. Press ∇/Δ to select EXT SOURCE, then press OK.
The EXT SOURCE menu appears.
3. Press ∇/Δ to select EXT SETTING, then press OK.
The EXT SETTING menu appears.
4. Press ∇/Δ to select an EXT input terminal.
5. Press blue button.
The ID LIST appears.



6. Press ∇/Δ to select an EXT ID.



Note:

- To erase the EXT ID, select a blank space.

7. Press OK.

- This completes the procedure. Press the TV button to exit the menu.

DUBBING

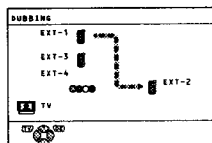
Select output to a VCR or other device connected to the EXT-2 terminal. Note that you cannot output from the EXT-2 terminal when the TV is tuned off.

Note:

- RGB signals from TV games and TELETEXT screens cannot be output from EXT-2 terminal.

1. Press OK.
The MENU appears.

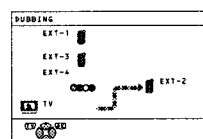
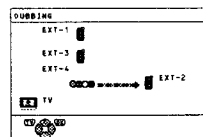
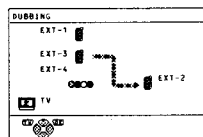
2. Press ∇/Δ to select EXT SOURCE, then press OK.
The EXT SOURCE menu appears.
3. Press ∇/Δ to select DUBBING, then press OK.
The DUBBING menu appears.



4. Press ∇/Δ to select the input which you want to output from EXT-2.

TV:

The sound and picture of the currently selected PR channel is output from EXT-2, so you can record the output on a VCR connected to the EXT-2 terminal while watching a video input from the EXT-1, EXT-2 or EXT-4 terminal. Even when a SUB picture is displayed, the output TV broadcast PR channel does not change. However, when another PR channel is being watched in the SUB picture, if the SWAP function is used, the output TV broadcast PR channel is switched.



5. Press OK.
The menu disappears.

LANGUAGE

You can select one of ten languages for the on-screen display.

1. Press OK.
The MENU appears.
2. Press ∇/Δ to select INSTALL, then press OK.
The INSTALL menu appears.



3. Press ∇/Δ to select LANGUAGE, then press OK.
The LANGUAGE menu appears.



4. Press ∇/Δ to select a language.

5. Press OK.
This completes the setting.

AUTO PROGRAM

You can automatically allocate up to 99 stations to PR channels PR 1 to PR99 on this TV.

When the TV receives a signal describing the station's name, it allocates those stations, station IDs, and registers them as they were preset at the JVC factory.

1. Press OK.
The MENU appears.
2. Press ∇/Δ to select INSTALL, then press OK.
The INSTALL menu appears.
3. Press ∇/Δ to select AUTO PROGRAM, then press OK.
The COUNTRY menu appears.



4. Press ∇/Δ / \leftarrow/\rightarrow to select your country.

Note:

- If you make a mistake when selecting your country, or do not want to use the Automatic allocation function, press OK button to return to the INSTALL menu.

5. Press blue button.

The PR channel is automatically set and the EDIT menu is displayed.

- If you want to edit PR channels or allocate a station to PR0 (AV) channel, see page 24 "EDIT/MANUAL" for procedural description.

Note:

- If a station you want to view is not allocated to a PR channel, perform Manual allocation (see page 26).

- The procedure is complete. Press the TV button to exit the menu.

OTHER PREPARATION

EDIT/MANUAL

You can change PR channel settings by doing any of the following:

- You can delete an unwanted station from a PR channel.
- You can change the PR channel number of a station.
- You can add station IDs to PR channels.
- You can add a new station to a PR channel, or
- You can manually allocate the desired station to a PR channel.

To edit PR channels

- Press **OK**.
The **MENU** appears.
- Press **▼/▲** to select **INSTALL**, then press **OK**.
The **INSTALL** menu appears.
- Press **▼/▲** to select **EDIT/MANUAL**, then press **OK**.
The **EDIT** menu appears.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

- Use any of the procedures described in the following pages to change the PR channel settings.

- This completes the procedure. Press the **TV** button to exit the menu.

To delete a station from a PR channel

- Press **▼/▲** to select the station you want to delete.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

- Press yellow button.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

Note:

- Stations allocated to PR channels following the deleted PR channel number are shifted back by one to the preceding PR channel number.

To change the PR channel number of a station

- Press **▼/▲** to select the station.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

- Press **▶**.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

- Press **▼/▲** to move the selected station to the desired PR channel number.

- To cancel the operation, press the **◀** (Information) button.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

- Press **◀**.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

To add a station ID to a station

- Press **▼/▲** to select the station.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

- Press red button.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

- Press **▼/▲** to select the first letter of the desired station's ID.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

- Press blue button.

The **ID LIST** menu appears.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

- Press **▼/▲** to select the station ID.

- To cancel the operation, press the **◀** (Information) button.

- Press **OK**.

Returns to the **EDIT** menu.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

Programming a station's ID manually

Follow the operations below in place of steps 3 thru 5.

- Press the **▼/▲** button repeatedly to select a character.
- Press the **▶** button to move cursor to input position.
- To complete station ID, follow steps (1) and (2) repeatedly.

To add a new station to a PR channel

- Press **▼/▲** to select the row containing the PR channel number to which you want to add a station.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

- Press green button.

- Press **▼/▲** to display the enter number indicator.

CH: to add terrestrial broadcast stations
CC: to add cable TV stations

AV-32WP2EP, AV-32WZ2EP and AV-28WZ2EP only:

If **COUNTRY** is set to **FRANCE**, select one of the following four items:

CH1: to add a system L terrestrial broadcast channel
CH2: to add a system B/G or I terrestrial broadcast channel
CC1: to add a system L cable TV channel

CC2: to add a system B/G or I cable TV channel

- To cancel the operation, press the **◀** (Information) button.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

Note:

- For details on the relationship between the displayed CH/CC number and the actual channel number, see the Channel table on page 31.

- Press the number buttons to enter the channel number.

- To enter a one-digit channel number, enter the corresponding number and press **OK** button.

| PR | ID | CH/CC |
|----|------|-------|
| 01 | BBC1 | CH 21 |
| 02 | | CH 22 |
| 03 | | CH 23 |
| 04 | | CH 24 |
| 05 | | CH 25 |
| 06 | | CH 26 |
| 07 | | CH 27 |
| 08 | | CH 28 |
| 09 | | CH 29 |

Note:

- When you add a station, the station preset to PR99 is deleted.

AV-32WZ2EN
AV-32WZ2EP
AV-28WZ2EN
AV-28WZ2EP

OTHER PREPARATION

To manually allocate a station to PR channel (Manual allocation)

Condition:

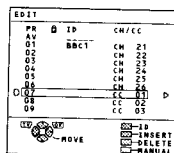
- If your TV is AV-32WP2EP, AV-32WZ2EP or AV-28WZ2EP, you can manually allocate French channels to PR channels.

To manually allocate French stations to PR channels, you must set COUNTRY to FRANCE. If COUNTRY is set to any other country than FRANCE, perform "AUTO PROGRAM" steps 1 thru 4 on page 23 to set COUNTRY to FRANCE. Then press the OK button to return to the INSTALL menu. Finally perform "To edit PR channel" step 2 thru 3 on page 24 to return to the EDIT menu.

1. Press ∇/Δ to select a PR channel number.

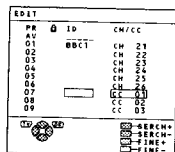
Note:

- PR channel number "AV" appears on the screen as PR 0 channel. We recommend that you allocate this PR channel to a VCR connected to the aerial socket.



2. Press blue button.

Your TV enters the Manual allocation mode.



3. Press green or red button to search for a station.

Scanning stops when the TV receives a broadcast.

Press green or red button to search for another station, and keep searching until you see the station you want.

CH: Terrestrial broadcast stations
CC: Cable TV stations

If reception is poor:
Press the blue or yellow button to fine-tune the station.

If your TV is AV-32WP2EP, AV-32WZ2EP or AV-28WZ2EP: When COUNTRY is set to FRANCE, the broadcast system is displayed as "(B/G)", "(I)" or "(L)" to the right of the PR channel number. If the signal of a station is incorrectly received, press the \blacktriangleright button to change the broadcast system and then repeat step 3.

Note:

- For details on the relationship between the displayed CH/CC number and the actual channel number, see the Channel table on page 31.

4. Press OK.

The station is allocated to a PR channel.

PICTURE TILT

(except AV-28WZ2EN and AV-28WZ2EP)

The AV-32WP2EN, AV-32WP2EP, AV-32WZ2EN or AV-32WZ2EP has a large picture tube in which a picture could be tilted to the left or right because of magnetic pull from the earth. Use the procedure described below to adjust the picture.

Note:

- The AV-28WZ2EN or AV-28WZ2EP does not have the tilted image correction function.

1. Press OK.

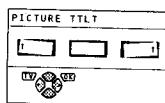
The MENU appears.

2. Press ∇/Δ to select PICTURE FEATURES, then press OK.

The PICTURE FEATURES menu appears.

3. Press ∇/Δ to select PICTURE TILT, then press OK.

The PICTURE TILT menu appears.



4. Press $\blacktriangleleft/\blacktriangleright$ to select the direction to which you want to correct the tilted image on your screen.

- ☐ : If it is inclined to the left, select this symbol to correct it.
- ☐ : If it is inclined to the right, select this symbol to correct it.
- ☐ : If it is not inclined to either the left or right, select this symbol to set it as it is.

5. Press OK.

The correction is complete.

CONNECTING AMPLIFIERS AND SPEAKERS

Condition:

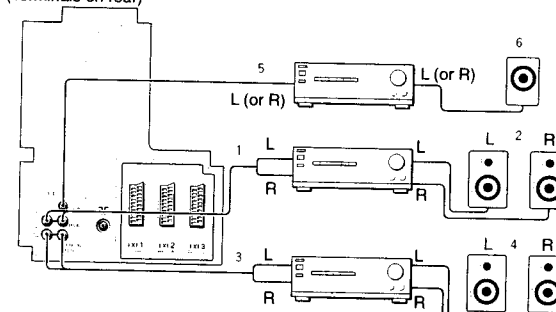
- When connecting audio amplifiers and speakers to your TV:
 - Turn the TV and audio amplifiers off before connecting them.
 - Set the audio amplifiers' volume to minimum.
 - Refer to manuals provided with the amplifier and speakers for further details.

Notes:

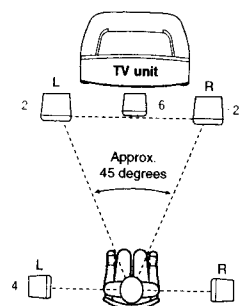
- The AUDIO OUT terminals on your TV are for connecting to an audio system. The output level is controlled by the Volume controls of your TV. The signal from the AUDIO OUT terminals will not cut off when headphones are connected.
- If you connect a Dolby Pro Logic Surround decoder to your TV, use the FRONT L and R jacks. Your TV has Dolby Pro Logic Surround functions, so if you connect an external decoder, turn off all surround function on your TV.

- 1, 3: Stereo amplifier
- 2: Front speakers (magnetic-shielded type, L, R)
- 4: Surround speakers (L, R)
- 5: Stereo amplifier (or monaural amplifier)
- 6: Centre speaker (magnetic-shielded type)

(Terminals on rear)



Positioning speakers



Notes:

- For a good effect, place speakers 4 1.0 m above the seated listener's head.
- For a good effect, place speaker 6 as close as possible to the TV along the same line as or behind, speakers 2.
- Use magnetic-shielded speakers for speakers 2 and 6 to avoid TV interference.

To use 2 external speakers

You can cut off the sound output from the TV's speakers and enjoy sound from external front speakers.

1. Connect stereo amplifier ① and front speakers ② to your TV.

2. Turn your TV on, and press the Volume \rightarrow button to set the volume to the lowest setting.

3. Press OK.

The MENU appears.

4. Press ∇/Δ to select SOUND SETTING, then press OK.

The SOUND SETTING menu appears.



Note:

- When DOLBY PRO LOGIC or PRO LOGIC 3D-PHONIC is selected in DIGITAL SURROUND menu, "SPEAKER" does not appear. In this case, press the OK button to exit the current menu. Then, press the 3D button twice to select SURROUND OFF and repeat from Step 3.

5. Press ∇/Δ to select SPEAKER.

6. Press $\blacktriangleleft/\blacktriangleright$ to select OFF.

The TV's speakers become silent.

To output sound from the TV speakers:
Set SPEAKER to ON.

7. Press OK.

The menu disappears.

When using the TV speakers as the centre speaker:

When enjoying the DOLBY PRO LOGIC 3D-PHONIC surround sound, it can be set so that 2 external speakers and the TV speakers (used as the centre speaker) can be used at the same time.

(Continued to the next page)

CONNECTING AMPLIFIERS AND SPEAKERS

In particular, since models other than AV-32WP2EN and AV-32WP2EP do not have a centre speaker built-in to the TV, if this method is used the "dialogue" becomes clearer.

1. Press OK.

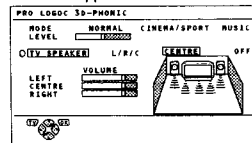
The menu appears.

2. Press ∇/Δ button to select DIGITAL SURROUND, then press OK.

The DIGITAL SURROUND menu appears.

3. Press ∇/Δ button to select PRO LOGIC 3D-PHONIC, then press \blacktriangleright .

The PRO LOGIC 3D-PHONIC menu appears.



4. Press ∇/Δ button to select TV SPEAKER, then press $\blacktriangleleft/\blacktriangleright$ button to select CENTRE.

5. Press OK.

The menu disappears.

8. Turn your audio amplifier on, and return the volume of your audio amplifier to the normal setting.

Note:

- Take care not to set the volume of your audio amplifier too high as this may damage your speakers.

9. Press the Volume $-/+$ button to adjust the volume.

- This completes the procedure.

To use 4 or 5 speakers

You can enjoy Dolby Pro Logic Surround sound with 4 or 5 speakers.

1. Connect audio amplifiers and speakers to the TV.

Do one of the following:

- A:** Connect stereo amplifier 3 and surround speakers 4.

- If your TV is AV-32WP2EN or AV-32WP2EP, it has a centre speaker built-in and you can easily enjoy Dolby Pro Logic surround sound using 5 speakers.

- If your TV is not AV-32WP2EN or AV-32WP2EP, although it does not have a centre speaker built-in to the TV, you can easily enjoy Dolby Pro Logic surround sound by using the PHANTOM mode which omits the centre speaker.

- B:** Connect stereo amplifiers 1, 3, front speakers 2, and surround speakers 4. This uses the TV's speakers as the centre speakers.

- C:** Connect stereo amplifiers 1, 3, stereo amplifier (or monaural amplifier) 5, front speakers 2, surround speakers 4, and centre speaker 6. If you use this method, do not output sound from the TV's speakers.

2. Turn your TV on, and press the Volume $-/+$ button to set the volume to the normal setting.

3. Press OK.

The MENU appears.

4. Press ∇/Δ to select DIGITAL SURROUND, then press OK.

The DIGITAL SURROUND menu appears, showing the currently selected setting.



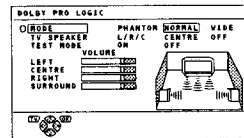
Note:

- If DIGITAL SURROUND does not appear, disconnect the headphones from the TV.

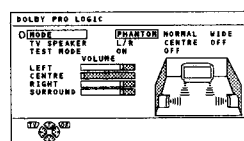
5. Press ∇/Δ to select DOLBY PRO LOGIC, then press \blacktriangleright .

The DOLBY PRO LOGIC menu appears.

In the case of AV-32WP2EN or AV-32WP2EP:



In the case of models other than AV-32WP2EN and AV-32WP2EP:



6. Press ∇/Δ to select an item, and press $\blacktriangleleft/\blacktriangleright$ to change its setting.

In the case of AV-32WP2EN or AV-32WP2EP:

| Method | Item | |
|----------|--------|------------|
| | MODE | TV SPEAKER |
| A | NORMAL | L/R/C |
| B | NORMAL | CENTRE |
| C | NORMAL | OFF |
| | WIDE | |

In the case of models other than AV-32WP2EN and AV-32WP2EP:

| Method | Item | |
|----------|---------|------------|
| | MODE | TV SPEAKER |
| A | PHANTOM | L/R |
| B | NORMAL | CENTRE |
| C | NORMAL | OFF |
| | WIDE | |

Notes:

- Set MODE to WIDE when using a full-range speaker as the centre speaker. Frequencies of 100 Hz or lower are output from the centre speaker to give Dolby Surround an even greater impact.

- Since AV-32WP2EN and AV-32WP2EP have a centre speaker built-in to the TV, it is not necessary to select the PHANTOM mode. If the PHANTOM mode is selected, sound is prevented from coming out of the centre speaker.

7. Turn your audio amplifier on, and return the volume of your audio amplifier to the normal setting.

Note:

- Take care not to set the volume of your audio amplifier too high as this may damage your speakers.

8. Press ∇/Δ to select TEST MODE.

9. Press $\blacktriangleleft/\blacktriangleright$ to set TEST MODE to ON.

Test signals alternate among the speakers.

Note:

- If the test signal level is small to listen to, adjust it with the volume of your audio amplifier. However, take care not to set the volume too high as this may damage your speakers.

10. Press $\blacktriangleleft/\blacktriangleright$ to adjust the level of each of the speakers so that their volumes are the same at the listening position (the place where the person is sitting in the diagram, see page 27).

LEFT, RIGHT:
Front speaker L, R

CENTRE:
Centre speaker

SURROUND:
Surround speakers

Notes:

- When MODE is set to PHANTOM, the volume of CENTRE: (Centre speaker) cannot be adjusted.
- If the volume of both speakers is not the same even after adjusting the volume, adjust the volume of your audio amplifier.

11. Press OK.

The menu disappears.

- This completes the procedure.

TROUBLESHOOTING


- If the plug is disconnected from the AC socket, or the TV aerial has problems, you may think there is a problem with the TV itself. Be sure to check the following before calling for service.

IMPORTANT

- Review all instructions in this manual.

| | Problem | Action |
|------------------|--|---|
| ■ GENERAL | No power supply. | Insert the plug in an AC socket. Press the Main power button (see page 6). |
| | No picture or sound. | Check aerial connections (see page 4). Press the number 0 button to select the correct mode (see page 10). Select the correct colour system manually (see page 11). |
| | The power shuts off automatically. | Press the Standby button to turn the power on again (see page 6) |
| | Inoperable remote control. | Replace the batteries (see page 2). Insert the batteries correctly (see page 2). Use the remote control within about 7 metres of the TV. |
| | MENU can not be displayed. | Are you watching the Teletext screen? None of the MENU operations are possible in the Text mode. Perform the MENU operation after pressing the TV/Text button to cancel the Text mode. |
| | Poor colour. | Adjust COLOUR and BRIGHT (see page 12). Select the correct colour system manually (see page 11). |
| ■ PICTURE | The screen mode suddenly changed. | The ZOOM mode's automatic selective function is working (see page 13). |
| | The picture is tilted (AV-32WP2EN/EP, AV-32WZ2EN/EP only). | Use the PICTURE TILT to correct the tilt (see page 26). |
| | The SUB-picture image is disordered. | If the MAIN-picture image signal condition is bad, the SUB-picture image may be disordered. If the MAIN-picture image signal condition is improved, the SUB-picture image also improves. |
| | The top and bottom of the MAIN-picture or SUB-picture are missing. | If the picture standard of the MAIN-picture and SUB-picture are different, the top and bottom of one of them may be missing. |
| | The SUB-picture display suddenly disappears. | If an external device is operated, the SUB-picture may disappear. If this happens, press the PIP button once more and redisplay the SUB-picture. |

TROUBLESHOOTING

| | Problem | Action |
|------------|---|--|
| ■ PICTURE | The same image is displayed in both the MAIN-picture and SUB-picture. | If the SWAP button is pressed when the image from the external decoder is displayed in the MAIN-picture, the same image is displayed in both the MAIN-picture and SUB picture. If the SWAP button is pressed once more, the previous state is returned to. |
| | Lines or streaks in picture (interference). | Move the components apart until the interference is eliminated. Reposition the aerial. |
| | Spots (crosstalk). | Reposition the aerial. Replace with an aerial with better directionality. |
| | Double pictures (ghosts). | Reposition the aerial. Replace with an aerial with better directionality. |
| | Snowy pictures (noise). | Check aerial connections. Redirect the aerial. Replace or repair the aerial. |
| | The screen turns blue. | The BLUE BACK function is on (see page 16). |
| ■ SOUND | No sound from the TV's speakers. | Disconnect the headphones. If you want to have sound come from both the TV's speaker and headphones, set TV SPEAKER in the HEADPHONE menu to ON. (See page 8.) Set SPEAKER to ON (see page 27). |
| | The headphone volume level can not be adjusted. | It can not be adjusted with the Volume +/- button. Adjust it with the VOLUME function in the HEADPHONE menu. (See page 8.) |
| | The sound from the TV does not stop even if the headphones are connected. | TV SPEAKER in the HEADPHONE menu is set to ON. Change the setting to OFF. (See page 8.) |
| | No stereo sound. | Change STEREO/I+II to  mode (see page 11). Is TV SPEAKER on the PRO LOGIC 3D-PHONIC menu or DOLBY PRO LOGIC menu set to CENTRE? Change the TV SPEAKER setting to L/R/C or L/C. (See pages 27 and 28.) When the SUB-picture is in TV mode, the SUB-picture sound is monaural only. |
| | No "SUB-I" or "SUB-II" sound in a multisound broadcast. | Change STEREO/I+II to the correct mode (see page 11). The Multi sound function does not work for the SUB-picture sound. |
| | Surround function does not function properly. | Dolby Pro Logic Surround and DOLBY PRO LOGIC 3D-PHONIC work properly only with Dolby Surround encoded programmes. Functions other than HYPER SOUND and the Headphone surround functions work properly only with stereo programmes. HYPER SOUND works properly only with monaural programmes. None of the surround sound functions work for the SUB picture sound. |
| | The POWER BASS function does not work. | Are you listening to the SUB picture sound? The POWER BASS function does not work for the SUB picture sound. |
| ■ TELETEXT | No teletext reception. | Tune to a teletext broadcast channel (see page 18). We recommend that you not videotape teletext, as it may not be recorded correctly. |
| | The current time is not displayed. | Tune to a teletext broadcast channel (see page 16). |

The following are normal and are NOT malfunctions:

- When you touch the CRT surface, you might feel a slight charge of static electricity. This is because the CRT contains static electricity; it does not affect the human body.
- The TV may emit a crackling sound due to a sudden change in temperature. There is no problem unless the picture or sound is abnormal.
- When a bright a still image (of a white dress, for example) appears on the screen, the image may be coloured. This problem occurs in all CRTs, and as the bright image disappears, such colouration also disappears.
- This TV is equipped with a microcomputer that may operate abnormally due to interference from external components. If this happens, turn off the main power and disconnect the power cord from the AC socket. Then reconnect the power cord to AC socket and turn on the main power again.

Channel table

- The following table shows the relationship between the displayed CH/CC channel number and the actual channel number.
- The actual channel numbers for the "CC" channel numbers from CC110 to CC161 differ depending on the cable TV station. Check which actual channel numbers correspond to which "CC" channels while referring to the broadcast frequencies which are indicated in the channel tables of each cable TV station. If you can not find the broadcast frequency for a channel, contact the cable TV station.

| CH | Channel | CH | Channel | CC | Channel | CC | Channel |
|----------------|----------------|----------------|---------|----------------|---------|----------------|------------|
| CH 02 / CH 202 | E2 | CH 40 / CH 240 | E40 | CC 01 / CC 201 | S1 | CC 31 / CC 231 | S31 |
| CH 03 / CH 203 | E3, ITALY A | CH 41 / CH 241 | E41 | CC 02 / CC 202 | S2 | CC 32 / CC 232 | S32 |
| CH 04 / CH 204 | E4, ITALY B | CH 42 / CH 242 | E42 | CC 03 / CC 203 | S3 | CC 33 / CC 233 | S33 |
| CH 05 / CH 205 | E5, ITALY D | CH 43 / CH 243 | E43 | CC 04 / CC 204 | S4 | CC 34 / CC 234 | S34 |
| CH 06 / CH 206 | E6, ITALY E | CH 44 / CH 244 | E44 | CC 05 / CC 205 | S5 | CC 35 / CC 235 | S35 |
| CH 07 / CH 207 | E7, ITALY F | CH 45 / CH 245 | E45 | CC 06 / CC 206 | S6 | CC 36 / CC 236 | S36 |
| CH 08 / CH 208 | E8 | CH 46 / CH 246 | E46 | CC 07 / CC 207 | S7 | CC 37 / CC 237 | S37 |
| CH 09 / CH 209 | E9, ITALY G | CH 47 / CH 247 | E47 | CC 08 / CC 208 | S8 | CC 38 / CC 238 | S38 |
| CH 10 / CH 210 | E10, ITALY H | CH 48 / CH 248 | E48 | CC 09 / CC 209 | S9 | CC 39 / CC 239 | S39 |
| CH 11 / CH 211 | E11, ITALY H+1 | CH 49 / CH 249 | E49 | CC 10 / CC 210 | S10 | CC 40 / CC 240 | S40 |
| CH 12 / CH 212 | E12, ITALY H+2 | CH 50 / CH 250 | E50 | CC 11 / CC 211 | S11 | CC 41 / CC 241 | S41 |
| CH 21 / CH 221 | E21 | CH 51 / CH 251 | E51 | CC 12 / CC 212 | S12 | CC 75 / CC 275 | X |
| CH 22 / CH 222 | E22 | CH 52 / CH 252 | E52 | CC 13 / CC 213 | S13 | CC 76 / CC 276 | Y |
| CH 23 / CH 223 | E23 | CH 53 / CH 253 | E53 | CC 14 / CC 214 | S14 | CC 77 / CC 277 | Z, ITALY C |
| CH 24 / CH 224 | E24 | CH 54 / CH 254 | E54 | CC 15 / CC 215 | S15 | CC 78 / CC 278 | Z+1 |
| CH 25 / CH 225 | E25 | CH 55 / CH 255 | E55 | CC 16 / CC 216 | S16 | CC 79 / CC 279 | Z+2 |
| CH 26 / CH 226 | E26 | CH 56 / CH 256 | E56 | CC 17 / CC 217 | S17 | | |
| CH 27 / CH 227 | E27 | CH 57 / CH 257 | E57 | CC 18 / CC 218 | S18 | | |
| CH 28 / CH 228 | E28 | CH 58 / CH 258 | E58 | CC 19 / CC 219 | S19 | | |
| CH 29 / CH 229 | E29 | CH 59 / CH 259 | E59 | CC 20 / CC 220 | S20 | | |
| CH 30 / CH 230 | E30 | CH 60 / CH 260 | E60 | CC 21 / CC 221 | S21 | | |
| CH 31 / CH 231 | E31 | CH 61 / CH 261 | E61 | CC 22 / CC 222 | S22 | | |
| CH 32 / CH 232 | E32 | CH 62 / CH 262 | E62 | CC 23 / CC 223 | S23 | | |
| CH 33 / CH 233 | E33 | CH 63 / CH 263 | E63 | CC 24 / CC 224 | S24 | | |
| CH 34 / CH 234 | E34 | CH 64 / CH 264 | E64 | CC 25 / CC 225 | S25 | | |
| CH 35 / CH 235 | E35 | CH 65 / CH 265 | E65 | CC 26 / CC 226 | S26 | | |
| CH 36 / CH 236 | E36 | CH 66 / CH 266 | E66 | CC 27 / CC 227 | S27 | | |
| CH 37 / CH 237 | E37 | CH 67 / CH 267 | E67 | CC 28 / CC 228 | S28 | | |
| CH 38 / CH 238 | E38 | CH 68 / CH 268 | E68 | CC 29 / CC 229 | S29 | | |
| CH 39 / CH 239 | E39 | CH 69 / CH 269 | E69 | CC 30 / CC 230 | S30 | | |

(Continued to the next page)

Channel table

| CH | Channel | CH | Channel | CC | Frequency (MHz) | CC | Frequency (MHz) |
|--------|---------|--------|---------|--------|-----------------|--------|-----------------|
| CH 102 | F2 | CH 141 | F41 | CC 110 | 116 - 124 | CC 151 | 383 - 391 |
| CH 103 | F3 | CH 142 | F42 | CC 111 | 124 - 132 | CC 152 | 391 - 399 |
| CH 104 | F4 | CH 143 | F43 | CC 112 | 132 - 140 | CC 153 | 399 - 407 |
| CH 105 | F5 | CH 144 | F44 | CC 113 | 140 - 148 | CC 154 | 407 - 415 |
| CH 106 | F6 | CH 145 | F45 | CC 114 | 148 - 156 | CC 155 | 415 - 423 |
| CH 107 | F7 | CH 146 | F46 | CC 115 | 156 - 164 | CC 156 | 423 - 431 |
| CH 108 | F8 | CH 147 | F47 | CC 116 | 164 - 172 | CC 157 | 431 - 439 |
| CH 109 | F9 | CH 148 | F48 | CC 123 | 220 - 228 | CC 158 | 439 - 447 |
| CH 110 | F10 | CH 149 | F49 | CC 124 | 228 - 236 | CC 159 | 447 - 455 |
| CH 121 | F21 | CH 150 | F50 | CC 125 | 236 - 244 | CC 160 | 455 - 463 |
| CH 122 | F22 | CH 151 | F51 | CC 126 | 244 - 252 | CC 161 | 463 - 469 |
| CH 123 | F23 | CH 152 | F52 | CC 127 | 252 - 260 | | |
| CH 124 | F24 | CH 153 | F53 | CC 128 | 260 - 268 | | |
| CH 125 | F25 | CH 154 | F54 | CC 129 | 268 - 276 | | |
| CH 126 | F26 | CH 155 | F55 | CC 130 | 276 - 284 | | |
| CH 127 | F27 | CH 156 | F56 | CC 131 | 284 - 292 | | |
| CH 128 | F28 | CH 157 | F57 | CC 132 | 292 - 300 | | |
| CH 129 | F29 | CH 158 | F58 | CC 133 | 300 - 306 | | |
| CH 130 | F30 | CH 159 | F59 | CC 141 | 306 - 311 | | |
| CH 131 | F31 | CH 160 | F60 | CC 142 | 311 - 319 | | |
| CH 132 | F32 | CH 161 | F61 | CC 143 | 319 - 327 | | |
| CH 133 | F33 | CH 162 | F62 | CC 144 | 327 - 335 | | |
| CH 134 | F34 | CH 163 | F63 | CC 145 | 335 - 343 | | |
| CH 135 | F35 | CH 164 | F64 | CC 146 | 343 - 351 | | |
| CH 136 | F36 | CH 165 | F65 | CC 147 | 351 - 359 | | |
| CH 137 | F37 | CH 166 | F66 | CC 148 | 359 - 367 | | |
| CH 138 | F38 | CH 167 | F67 | CC 149 | 367 - 375 | | |
| CH 139 | F39 | CH 168 | F68 | CC 150 | 375 - 383 | | |
| CH 140 | F40 | CH 169 | F69 | | | | |

SPECIFICATIONS

| Model | AV-32WP2EN | AV-32WZ2EN | AV-28WZ2EN |
|--------------------------|---|---|--|
| Item | | | |
| TV RF systems | CCIR B/G | | |
| Colour systems | PAL, SECAM (NTSC 3.58 / 4.43 MHz only in EXT modes) | | |
| Channels and frequencies | E2-E12, E21-E69, S1-S41, X, Y, Z, Z+1, Z+2, A-H, H+1, H+2 | | |
| Sound-multiplex systems | A2/NICAM system | | |
| Teletext systems | Fastext (United Kingdom system) / TOP (German system) / WST (standard system) | | |
| Power requirements | AC 220 – 240 V, 50 Hz | | |
| Power consumption | Maximum 266 W, Average 161 W, Standby 0.8 W | Maximum 248 W, Average 151 W, Standby 0.8 W | Maximum 242 W, Average 147 W, Standby 0.8 W |
| Picture tube size | Visible area 76 cm (measured diagonally) | | Visible area 66 cm (measured diagonally) |
| Audio output | Rated Power output 20 W + 20 W + 5 W | Rated Power output 20 W + 20 W | |
| Speakers | 10 cm round × 2, 3.5 cm round × 2, (10 cm × 3 cm oval) × 1 | 10 cm round × 2, 3.5 cm round × 2 | |
| External input / output | EXT-1, EXT-2, EXT-3 | 21-pin Euroconnector (SCART) | |
| | EXT-4 | VIDEO IN (RCA) AUDIO L / R IN (RCA) S-VIDEO IN (Mini Din 4-pin) | |
| | AUDIO OUT | (Variable out (0-1 Vrms), low impedance) CENTRE output (RCA) FRONT L/R output (RCA) SURROUND REAR L/R output (RCA) | |
| | Headphone jack (stereo mini jack, dia. 3.5 mm) | | |
| Dimensions (W × H × D) | 805 mm × 550 mm × 550 mm | | 716 mm × 489 mm × 496 mm |
| Weight | 50.3 kg | 50.2 kg | 36.3 kg |
| Accessories | Remote control unit RM-C791 × 1 AAA (R03) dry cell battery × 2 | Remote control unit RM-C793 × 1 AAA (R03) dry cell battery × 2 | |

Design and specifications subject to change without notice.

Pictures displayed on the screen using this TV's image-processing functions should not be shown for any commercial or demonstration purpose in public places (tearooms and halls in hotels, etc.) without the consent of the owners of copyright of the original picture sources, as this constitutes an infringement of copyright.

AV-32WZ2EN
AV-32WZ2EP
AV-28WZ2EN
AV-28WZ2EP

AV-32WZ2EN
AV-32WZ2EP
AV-28WZ2EN
AV-28WZ2EP

AV-32WZ2EN
AV-32WZ2EP
AV-28WZ2EN
AV-28WZ2EP

AV-32WP2EN(A)/AV-32WP2EP(A)

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1. SAFETY

The components identified by the Δ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2. SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- | | |
|---|--|
| (1) Input signal | : PAL Colour bar signal |
| (2) Setting positions of each knob/button and variable resistor | : Original setting position when shipped |
| (3) Internal resistance of tester | : DC 20k Ω /V |
| (4) Oscilloscope sweeping time | : H \Rightarrow 20 μ S/div : V \Rightarrow 5mS/div : Others \Rightarrow Sweeping time is specified |
| (5) Voltage values | : All DC voltage values |
- * Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3. INDICATION OF PARTS SYMBOL [EXAMPLE]

- In the PW board : R1209 \rightarrow R209

4. INDICATIONS ON THE CIRCUIT DIAGRAM

(1) Resistors

● Resistance value

- | | |
|---------|-----------------|
| No unit | : [Ω] |
| K | : [K Ω] |
| M | : [M Ω] |

● Rated allowable power

- | | |
|---------------|----------------|
| No indication | : 1/6[W] |
| Others | : As specified |

● Type

- | | |
|---------------|-----------------------------|
| No indication | : Carbon resistor |
| OMR | : Oxide metal film resistor |
| MFR | : Metal film resistor |
| MPR | : Metal plate resistor |
| UNFR | : Uninflammbler resistor |
| FR | : Fusible resistor |

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2) Capacitors

● Capacitance value

- | | |
|-------------|--------------|
| 1 or higher | : [pF] |
| less than 1 | : [μ F] |

● Withstand voltage

- | | |
|---------------|----------------------------|
| No indication | : DC50[V] |
| Others | : DC withstand voltage [V] |

* Electrolytic Capacitors

47/50[Example]: Capacitance value [μ F]/withstand voltage[V]

● Type

- | | |
|---------------|-------------------------------------|
| No indication | : Ceramic capacitor |
| MY | : Mylar capacitor |
| MM | : Metalized mylar capacitor |
| PP | : Polypropylene capacitor |
| MPP | : Metalized polypropylene capacitor |
| MF | : Metalized film capacitor |
| TF | : Thin film capacitor |
| BP | : Bipolar electrolytic capacitor |
| TAN | : Tantalum capacitor |

(3) Coils

- | | |
|---------|----------------|
| No unit | : [μ H] |
| Others | : As specified |

(4) Power Supply

- | | |
|--|-----------|
| | : B1 |
| | : B2(12V) |
| | : 9V |
| | : 5V |

* Respective voltage values are indicated

(5) Test point

- | | |
|--|---------------------------|
| | : Test point |
| | : Only test point display |

(6) Connecting method

- | | |
|--|-------------------------|
| | : Connector |
| | : Wrapping or soldering |
| | : Receptacle |

(7) Ground symbol

- | | |
|--|---------------------------------|
| | : LIVE side ground |
| | : ISOLATED(NEUTRAL) side ground |
| | : EARTH ground |
| | : DIGITAL ground |

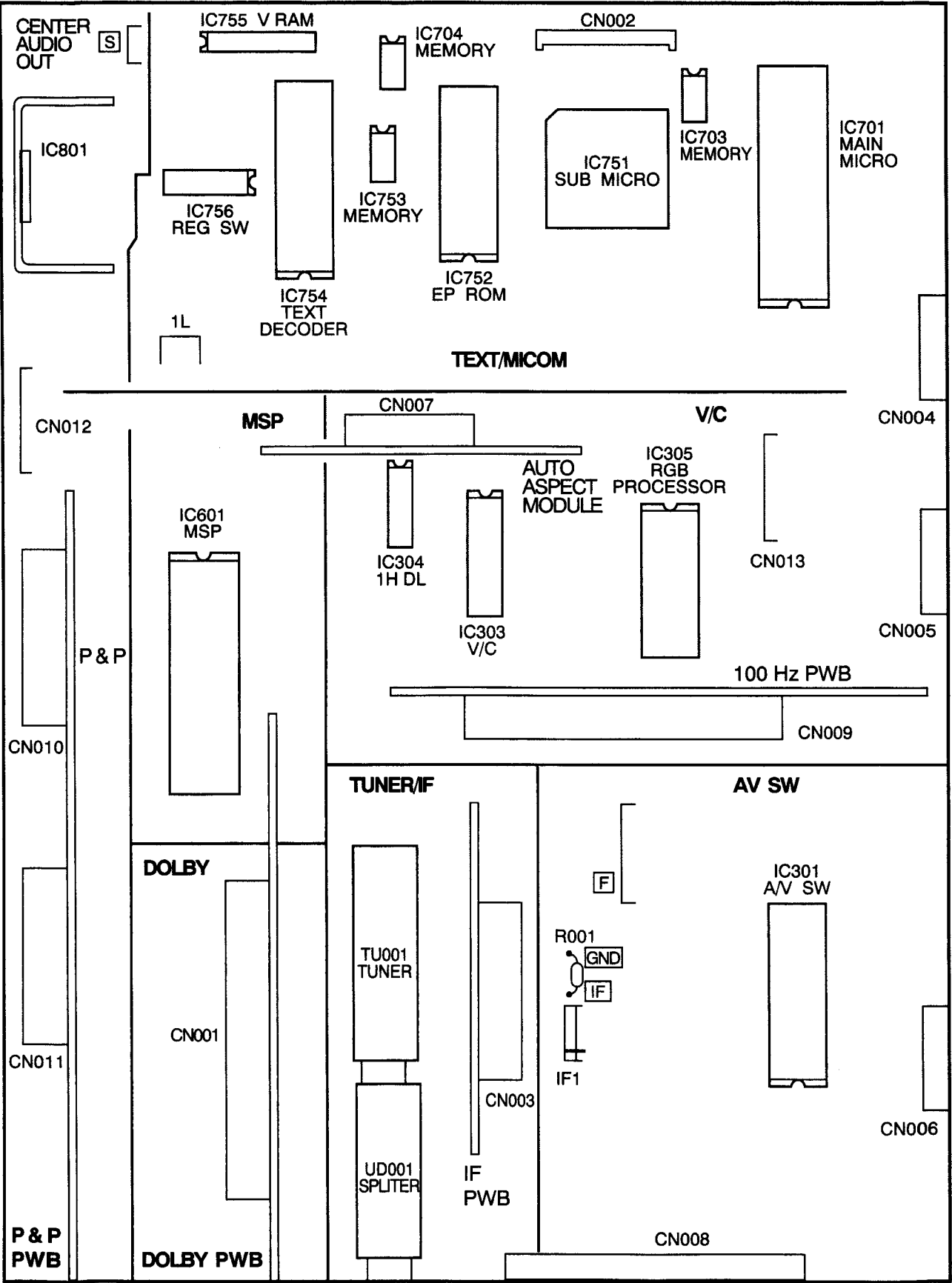
5. NOTE FOR REPAIRING SERVICE

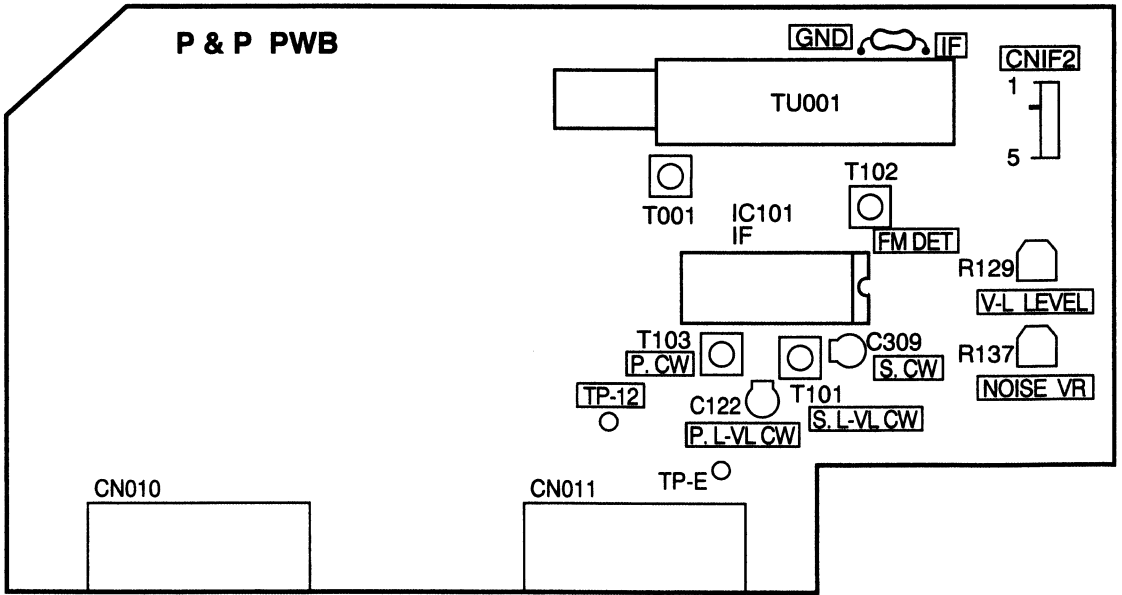
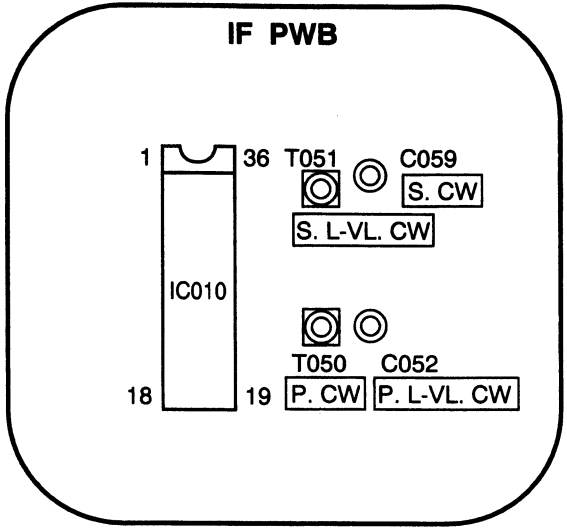
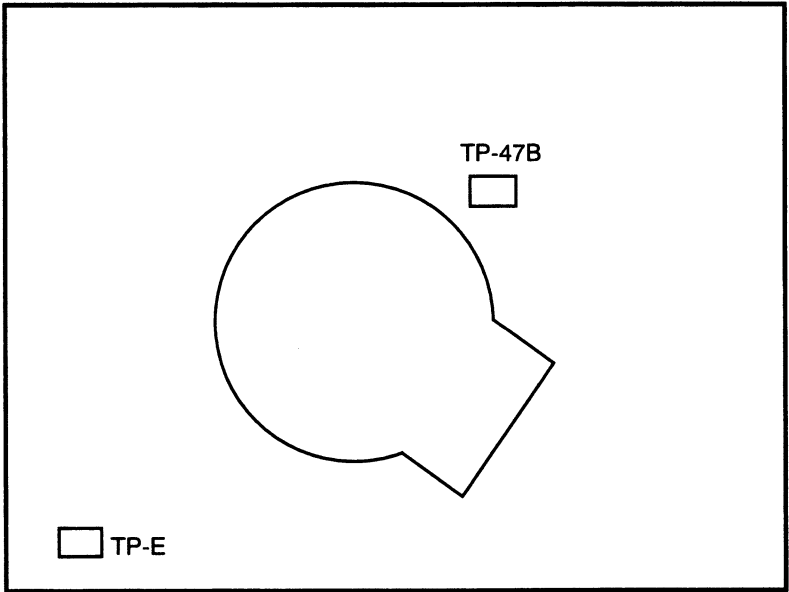
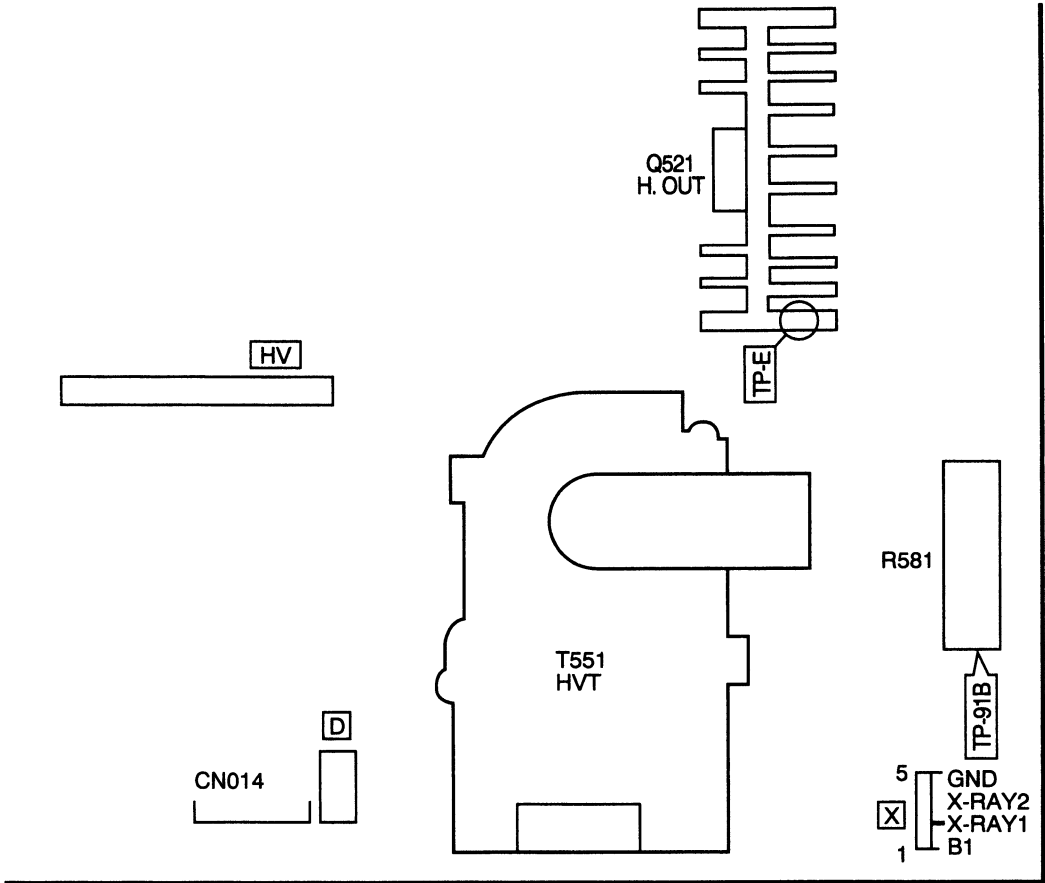
This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (\perp) side GND and the ISOLATED(NEUTRAL) : (\downarrow) side GND. Therefore, care must be taken for the following points.

- (1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

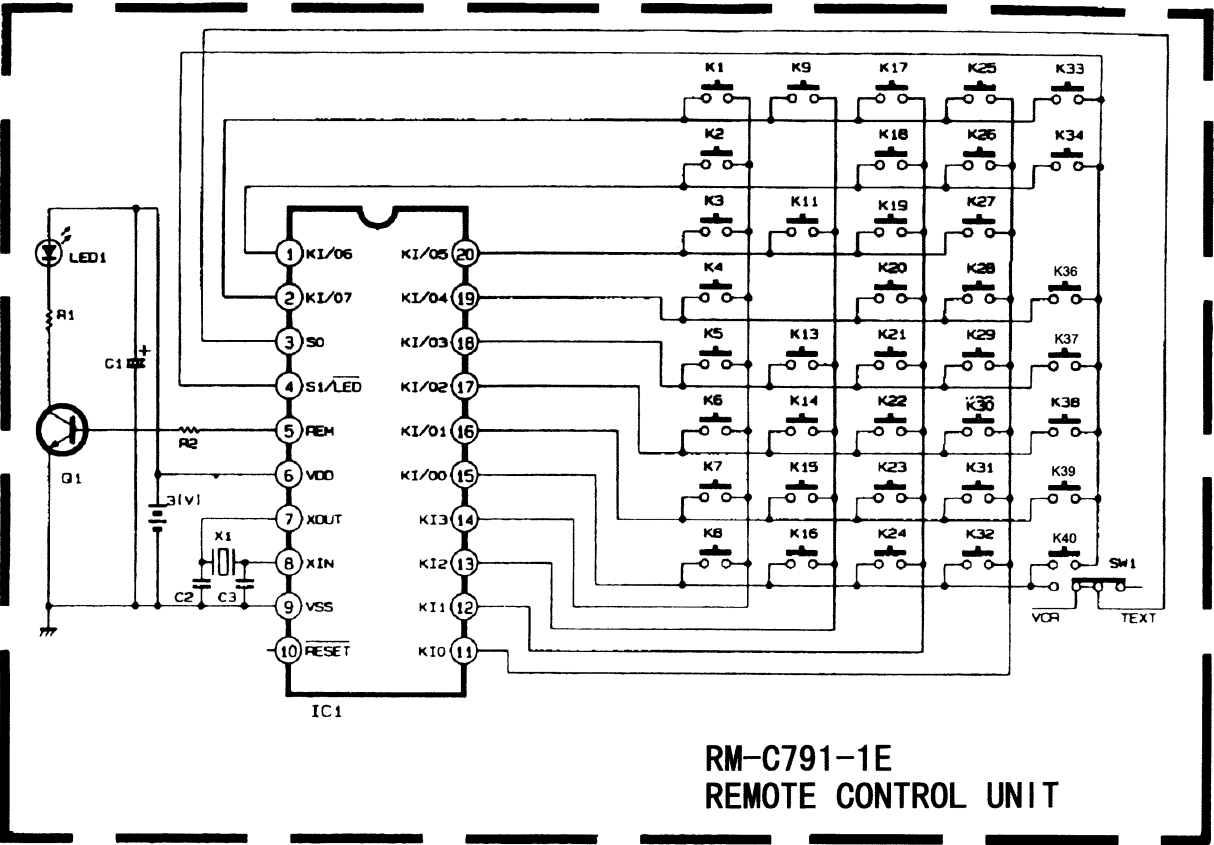
◇ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

【 MAIN PARTS LOCATION AND ALIGNMENTS LOCATION】





















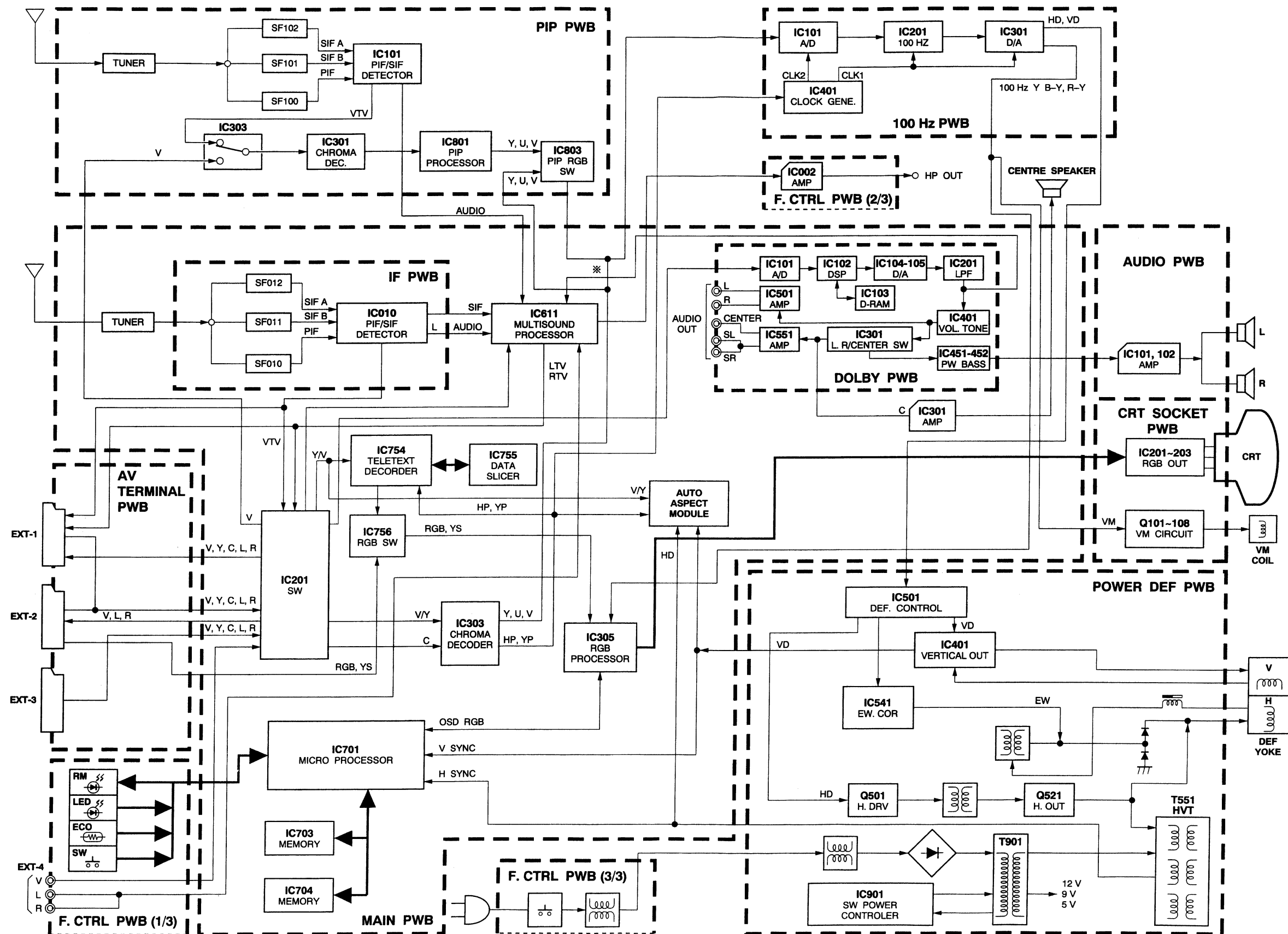
[REMOTE CONTROL UNIT CIRCUIT DIAGRAM]



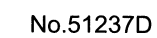
■KEY FUNCTION

| No. | Key Name | No. | Key Name | No. | Key Name | No. | Key Name |
|-----|----------|-----|--|-----|---|-----|--|
| 1 | 1 | 14 | 3D  | 22 | MODE (TEXT) | 29 | CANCEL (TEXT) |
| 2 | 2 | 15 | P.BASS | | REW  (VCR) | | STOP  (VCR) |
| 3 | 3 | 16 | PIP | 23 | SIZE (TEXT) | 30 | INDEX (TEXT) |
| 4 | 4 | 17 |  | | FF  (VCR) | |  /I (VCR) |
| 5 | 5 | 18 | REVEAL (TEXT) | 24 | SUB PAGE(TEXT) | 31 |  |
| 6 | 6 | | PLAY  (VCR) | | P V (VCR) | 32 |  |
| 7 | 7 | 19 | TV | 25 |  | 33 |  |
| 8 | 8 | 20 | MENU/OK | 26 | STORE (TEXT) | 34 |  |
| 9 | 9 | 21 | HOLD (TEXT) | | (VCR) | 36 | FREEZE |
| 11 | 0 | | P  (VCR) | 27 |  /I | 37 | MULTI |
| 13 | ZOOM | | | 28 |  | 38 | SWAP |
| | | | | | | 39 | SUB-P V |
| | | | | | | 40 | SUB-P  |

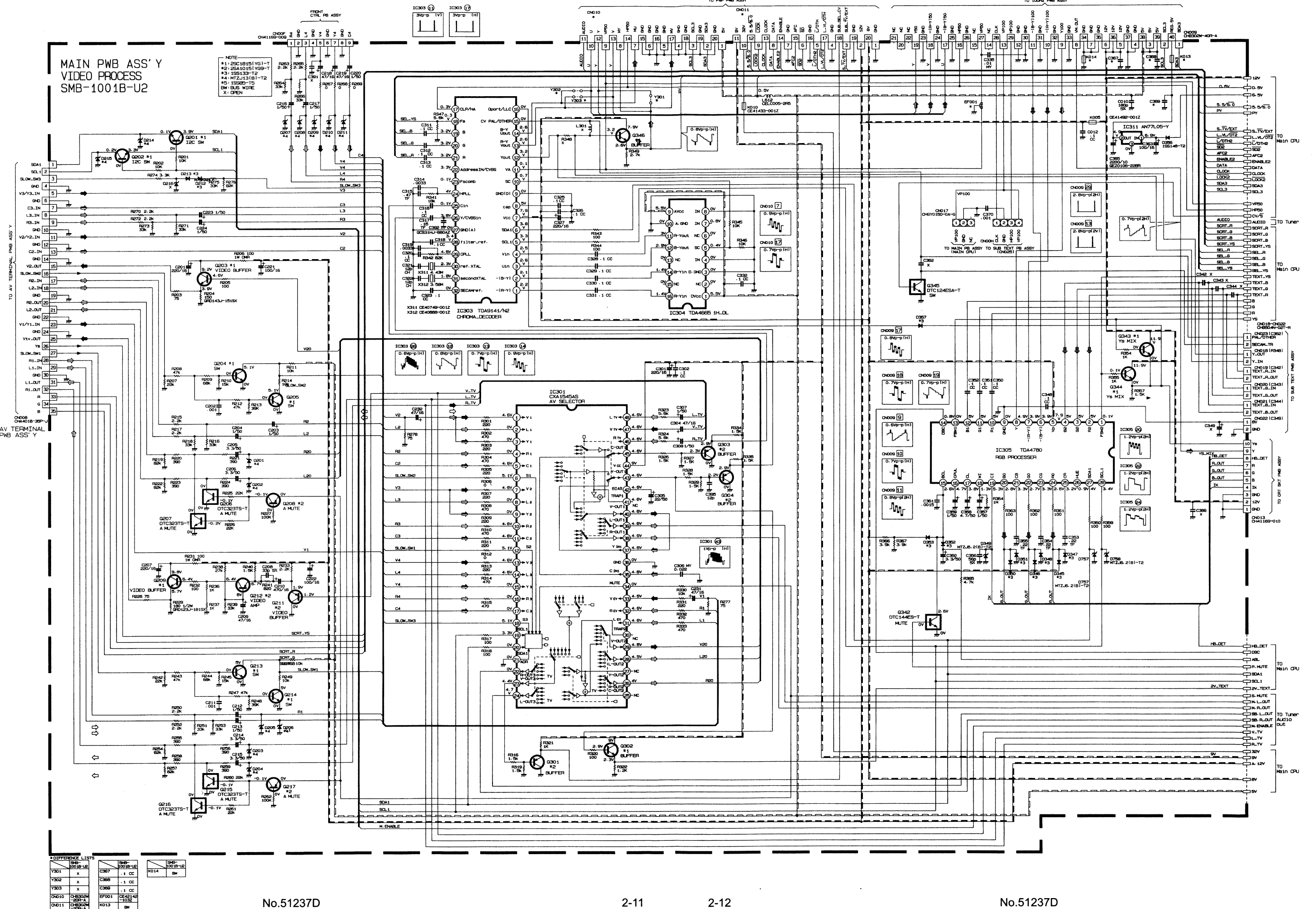
【 BLOCK DIAGRAM 】



| DIFFERENCE LISTS | |
|------------------|---------------|
| | 94-1001B-12 |
| TU001 | CE94481-001 |
| UD001 | CE94010-001 |
| | CE41433-0012 |
| IC802 | TAB213K |
| H001 | CE4017-001K1 |
| 0802 | 0273 |
| | 3DTS-T |
| RE04 | 0e |
| RE05 | 33k |
| RE06 | 10k |
| RE09 | GR012CU-2R250 |
| RE10 | 0e |
| CE02 | 10/50 |
| CE03 | 10/50 |
| CE05 | 100/25 |
| CE06 | 10/50 B |
| CE07 | .12 |
| CE08 | 1000/35 |
| CE09 | 1000/15 |
| CE10 | 1000/16 |
| CE11 | .0022 |

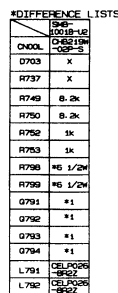


MAIN PWB ASS'Y
VIDEO PROCESS
SMB-1001B-U2

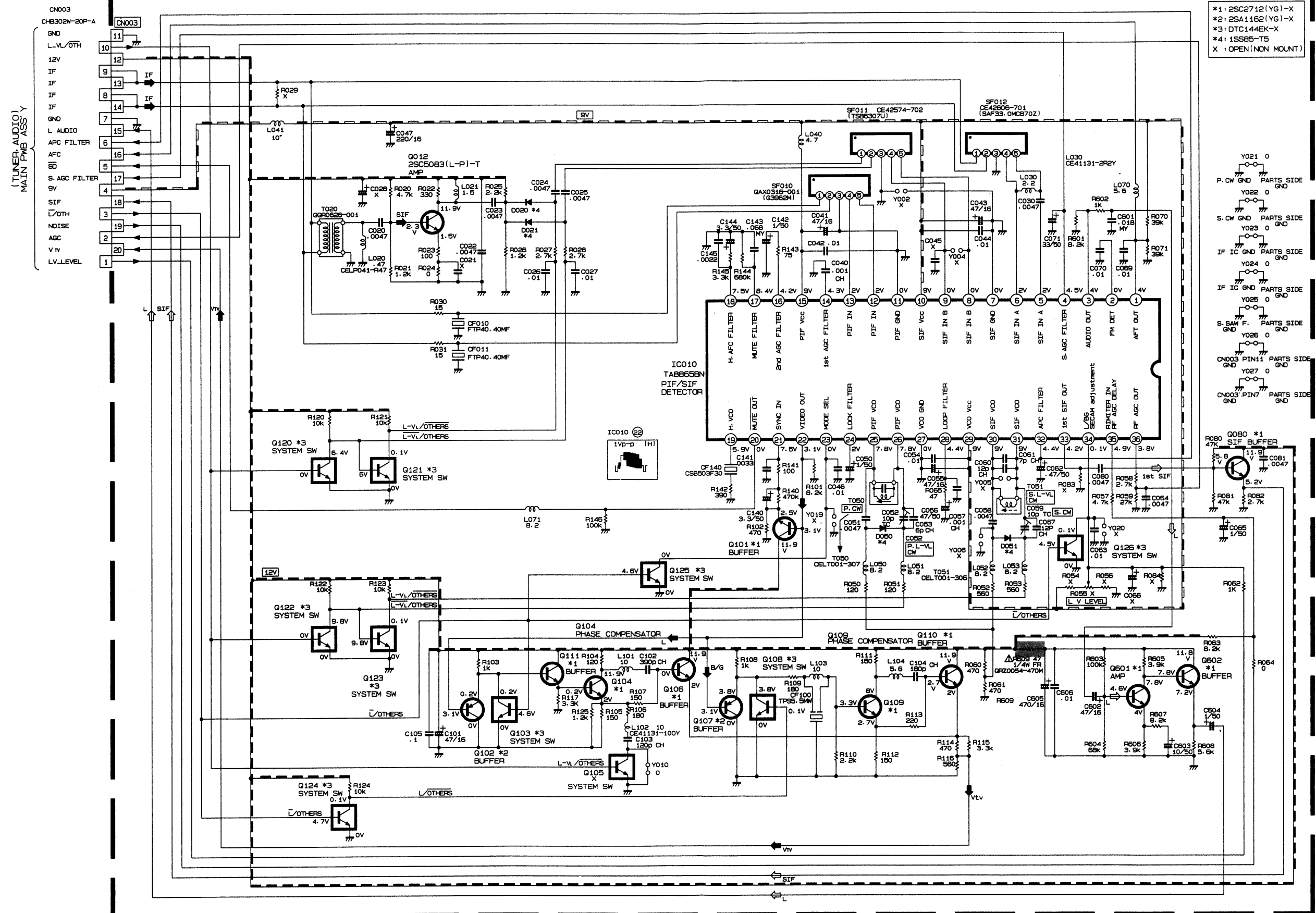


AV-32WP2EN
AV-32WP2EP

MAIN PWB ASS'Y(Main CPU)
SMB-1001B-U2



IF PWB ASS' Y SMB0F701B-U2



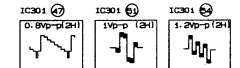
AV-32WP2EN
AV-32WP2EP

100HZ PWB ASSY
SMB0Z001B-U2 [WP2]
SMB0Z002B-U2 [WZ2]

NOTE

- *1 : 2SC1815(YG)-T
- *2 : 2SA1015(YG)-T
- *3 : 1SS133-T2
- *4 : MTZJ13(B)-T2
- *5 : 1SS85-T5

BW : BUS WIRE
X : OPEN



CRT SOCKET PWB ASSY
SMB-3001B-U2

NOTE
*1: 2SC3311A(QR)-T
*2: 2SA1309A(QR)-T
*3: MA165-T2
*4: 1SS252-T2
BW: BUS WIRE
X: NON-MOUNT (OPEN)

IC201 (B)
55Vp-p (H)

IC202 (B)
55Vp-p (H)

IC203 (B)
55Vp-p (2H)

IC201 TDA6111Q G-OUT

IC202 TDA6111Q R-OUT

IC203 TDA6111Q B-OUT

Q101 *2
Y DIFFERENTIAL

Q102 *1
VM AMP

Q103 *1
VM DRIVE

Q104 *2
VM DRIVE

Q105 2SC4793
VM OUT

Q106 2SC1906-T
VM SWITCH

Q107 *1
BUFFER

Q108 2SC1906-T
VM SWITCH

Q109 2SC1815(YG)-T
FLASH

Q110 2SA1015(YG)-T
POWERDET

Q111 2SA1015(YG)-T
HB DET

Q112 2SA1015(YG)-T
HB DET

Q113 2SA1015(YG)-T
HB DET

Q114 2SA1015(YG)-T
HB DET

Q115 2SA1015(YG)-T
HB DET

Q116 2SA1015(YG)-T
HB DET

Q117 2SA1015(YG)-T
HB DET

Q118 2SA1015(YG)-T
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Q119 2SA1015(YG)-T
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Q120 2SA1015(YG)-T
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Q121 2SA1015(YG)-T
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Q122 2SA1015(YG)-T
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Q123 2SA1015(YG)-T
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Q124 2SA1015(YG)-T
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Q125 2SA1015(YG)-T
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Q126 2SA1015(YG)-T
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Q127 2SA1015(YG)-T
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Q128 2SA1015(YG)-T
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Q129 2SA1015(YG)-T
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Q130 2SA1015(YG)-T
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Q131 2SA1015(YG)-T
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Q140 2SA1015(YG)-T
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Q141 2SA1015(YG)-T
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Q142 2SA1015(YG)-T
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Q200 2SA1015(YG)-T
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Q201 2SA1015(YG)-T
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Q202 2SA1015(YG)-T
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Q203 2SA1015(YG)-T
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Q224 2SA1015(YG)-T
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Q225 2SA1015(YG)-T
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Q226 2SA1015(YG)-T
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Q227 2SA1015(YG)-T
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Q228 2SA1015(YG)-T
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Q229 2SA1015(YG)-T
HB DET

Q230 2SA1015(YG)-T
HB DET

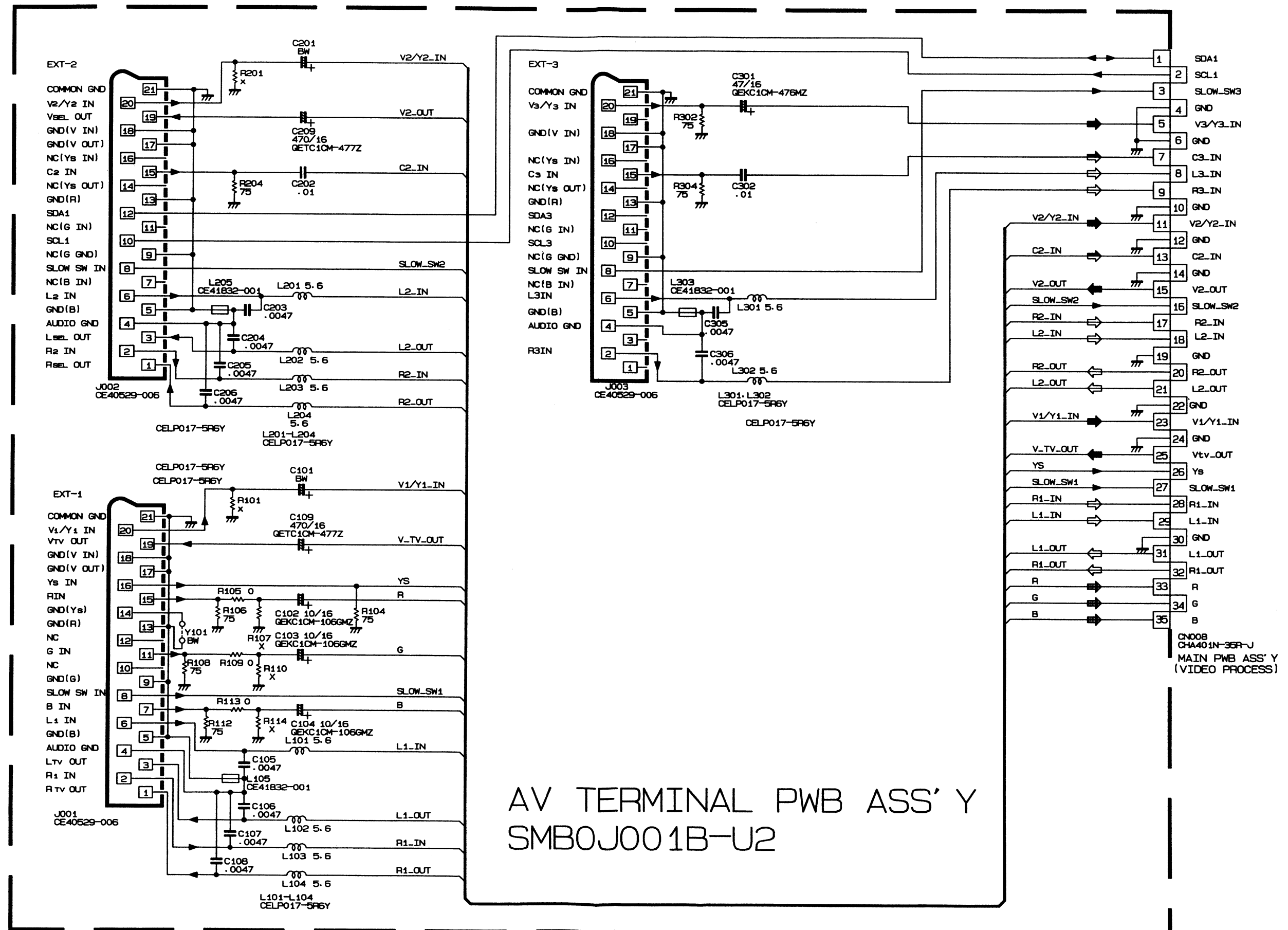
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HB DET

Q232 2SA1015(YG)-T
HB DET

Q233 2SA1015(YG)-T
HB DET

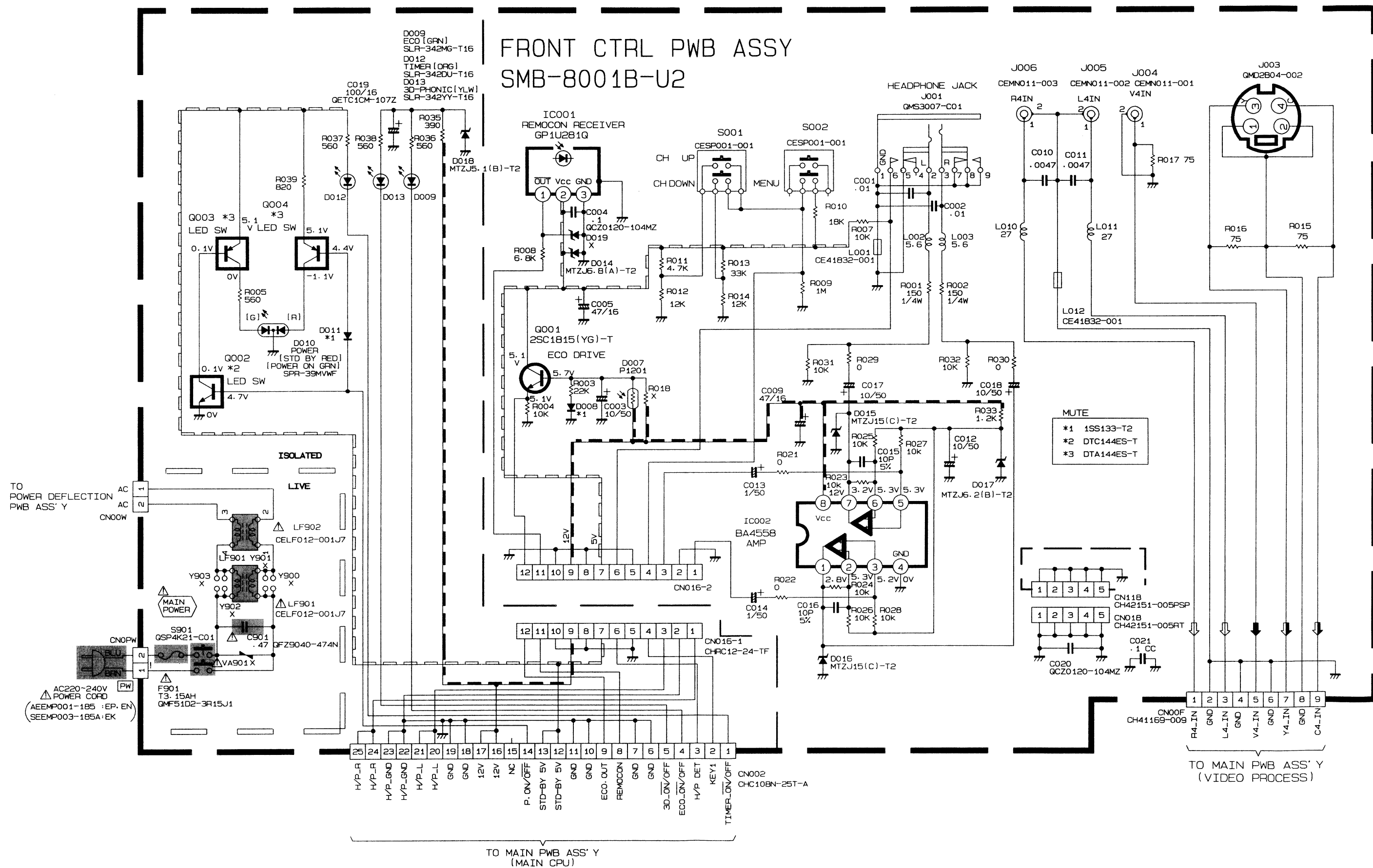
Q234 2SA1015(YG)-T
HB DET</

【 AV TERMINAL PWB CIRCUIT DIAGRAM 】

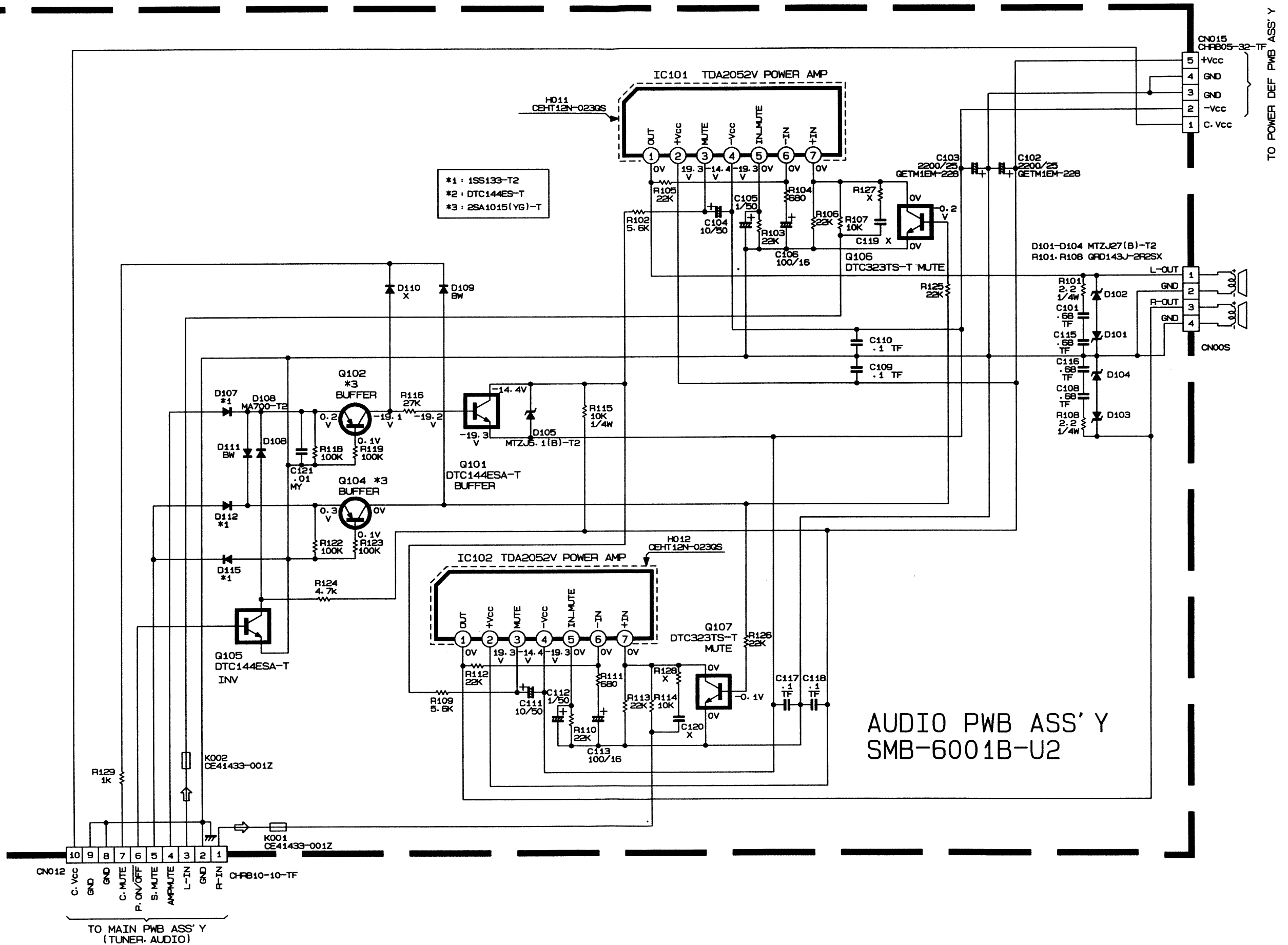


AV TERMINAL PWB ASS'Y
SMBOJ001B-U2

【 FRONT CONTROL PWB CIRCUIT DIAGRAM 】

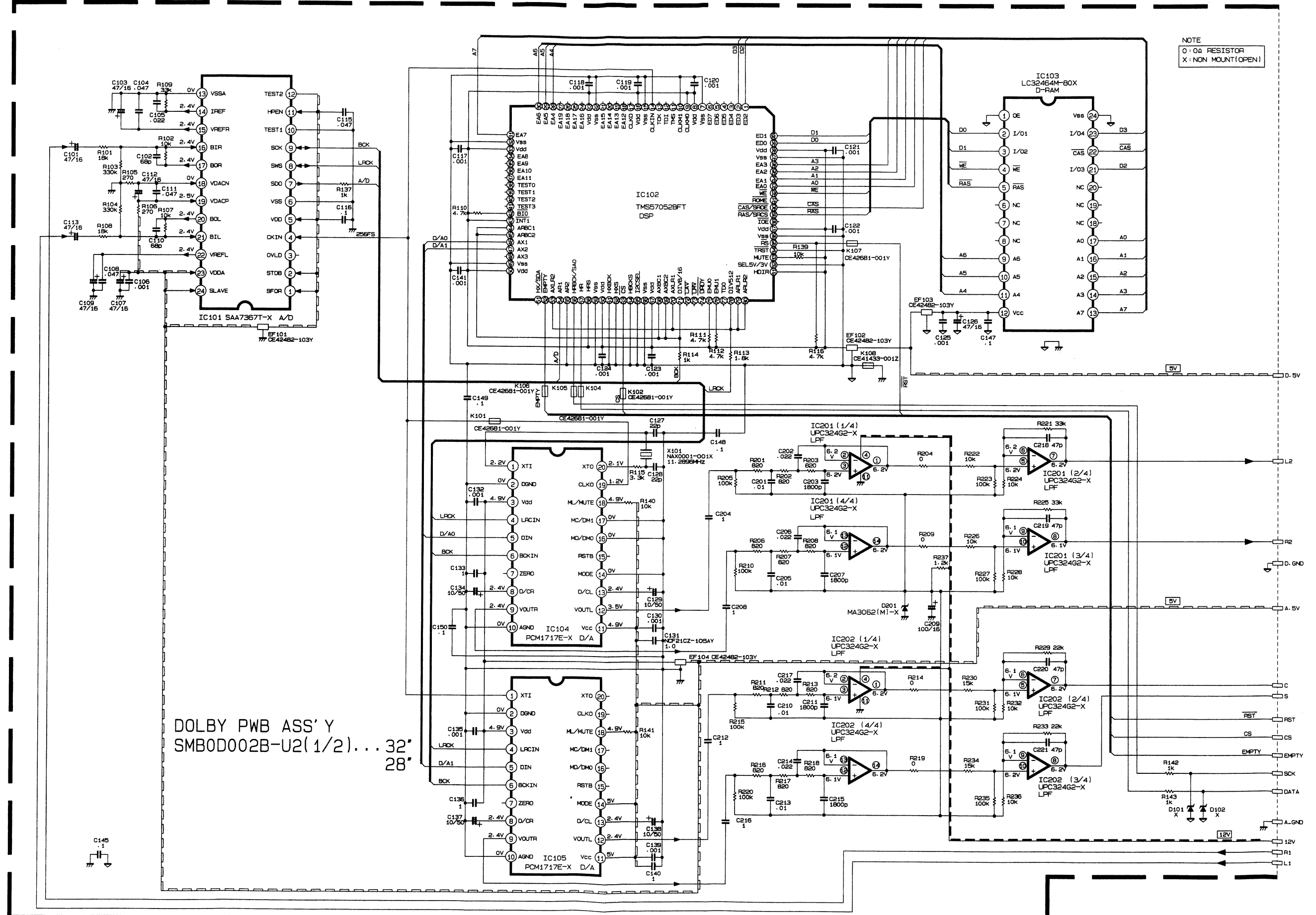


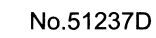
【 AUDIO PWB CIRCUIT DIAGRAM 】



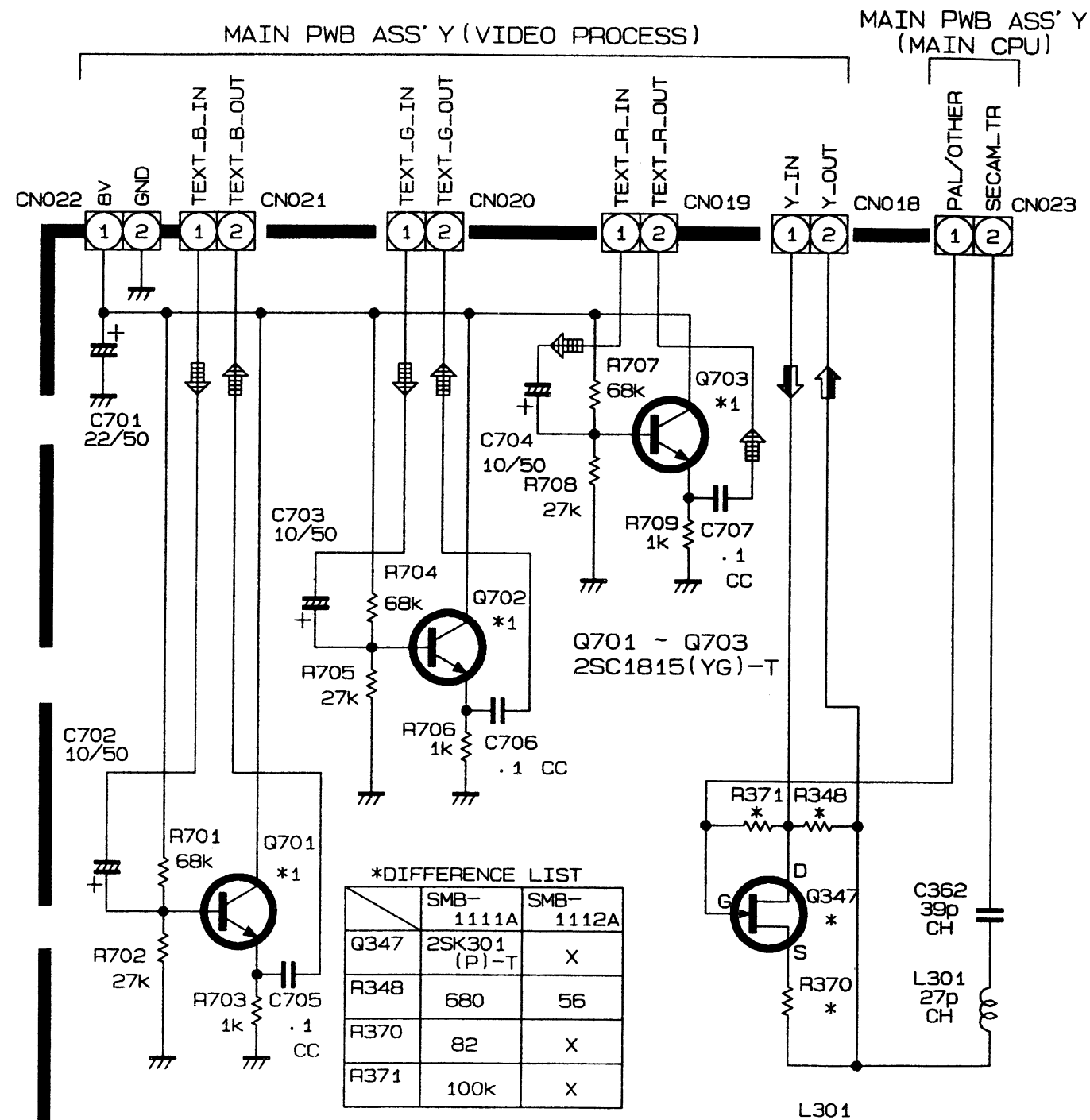
AUDIO PWB ASS'Y
SMB-6001B-U2

【 DOLBY PWB CIRCUIT DIAGRAM 】



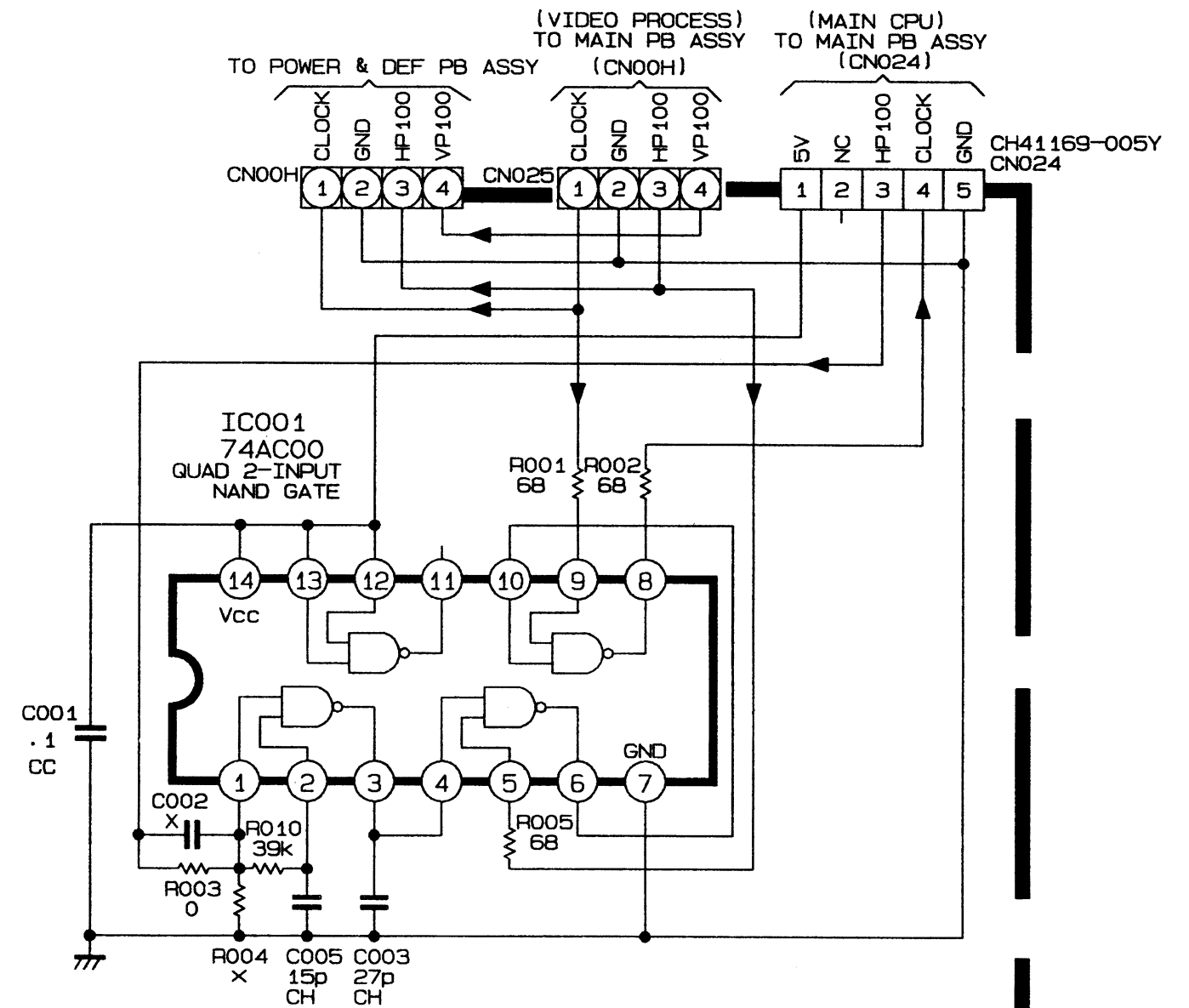


【 SUB TEXT PWB CIRCUIT DIAGRAM 】

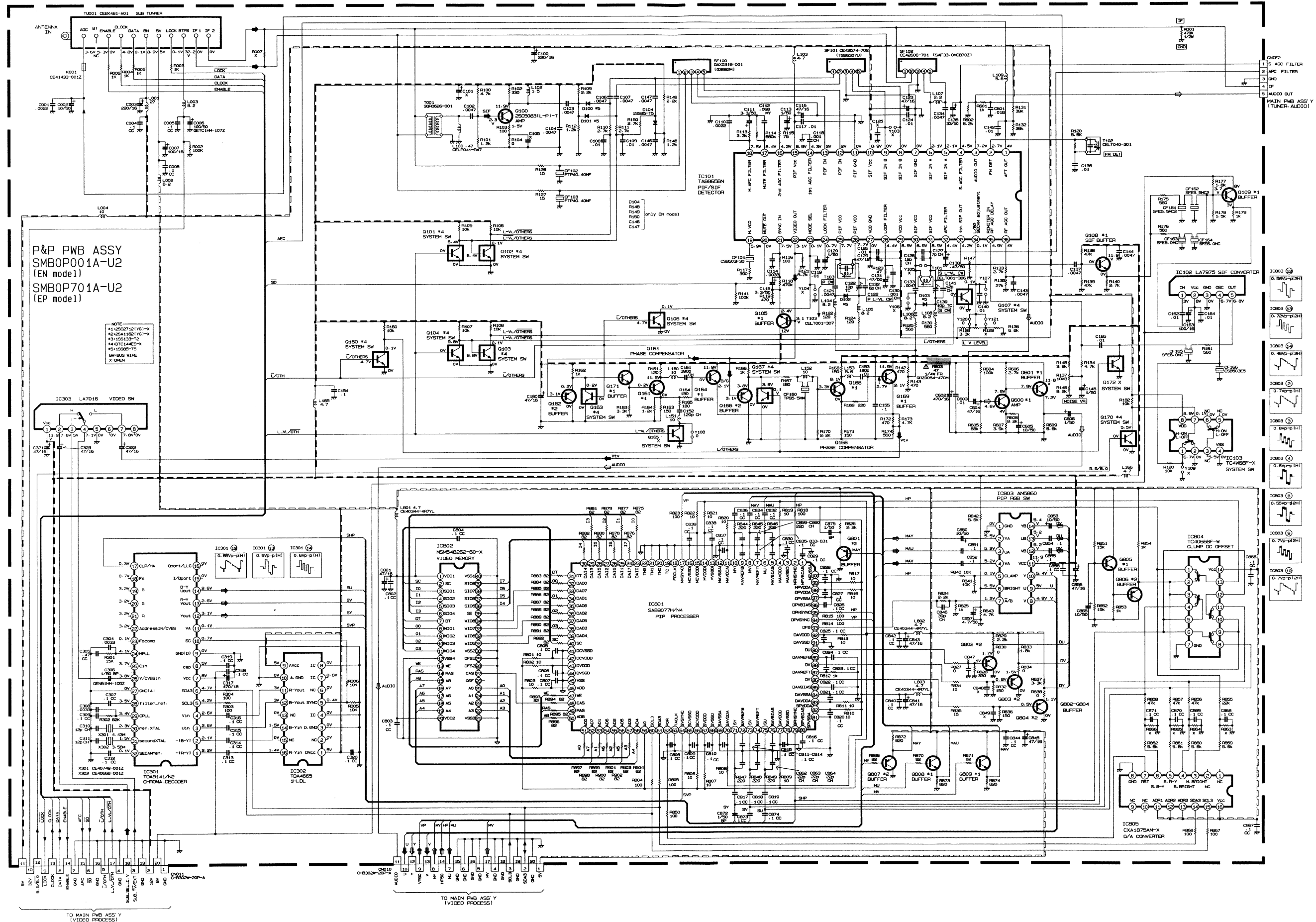


SUB TEXT PB ASSY

SMB1111B-U2..EP/EN SMB1112B-U2..EK

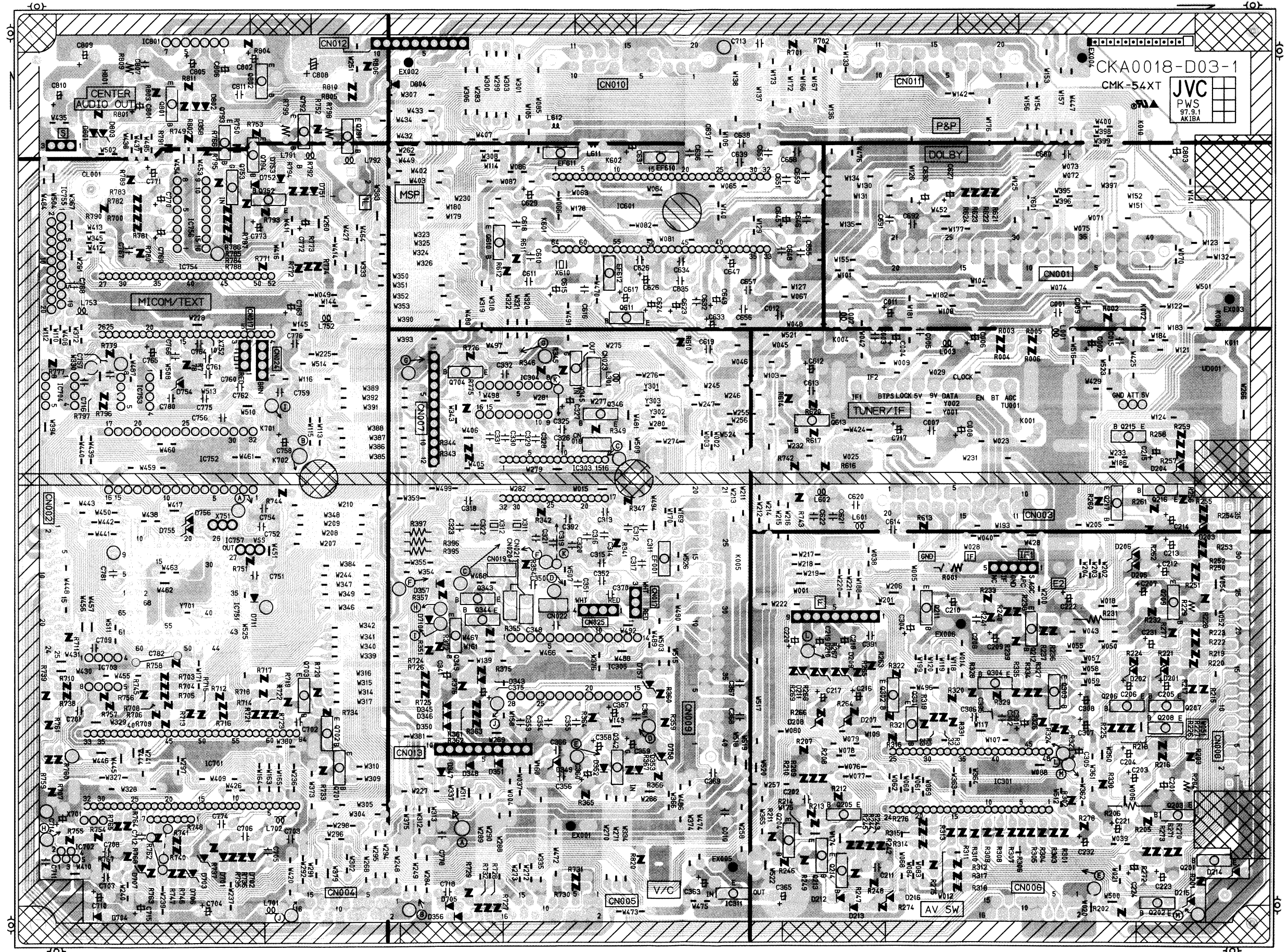


【 P&P PWB ASS'Y CIRCUIT DIAGRAM 】

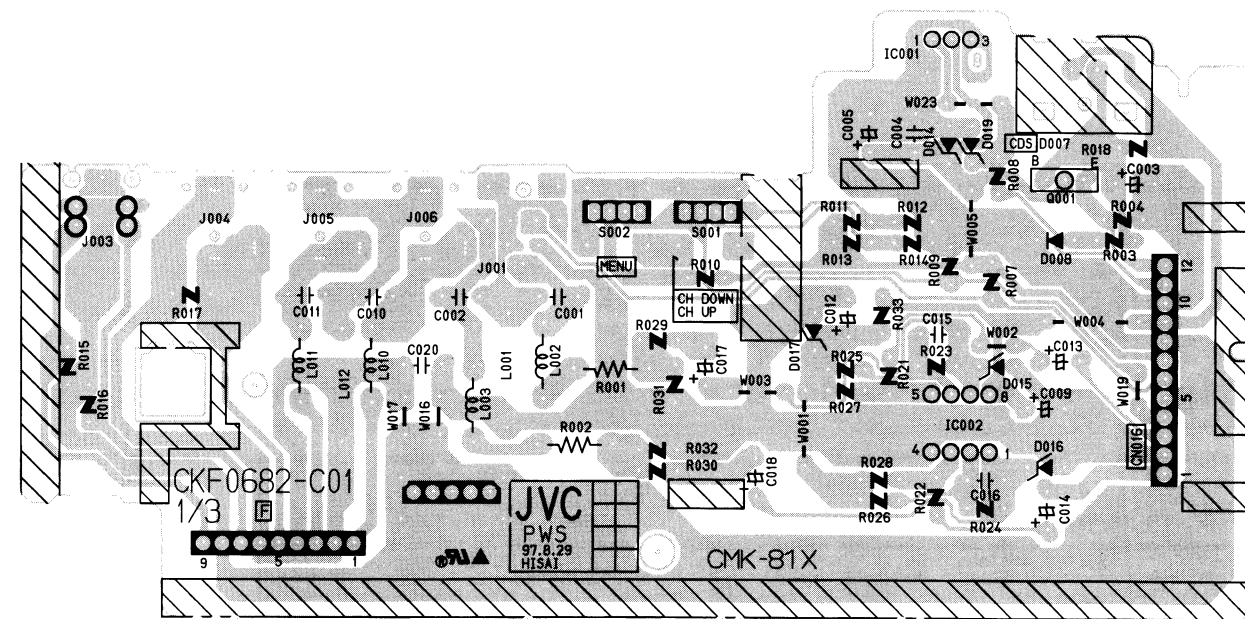


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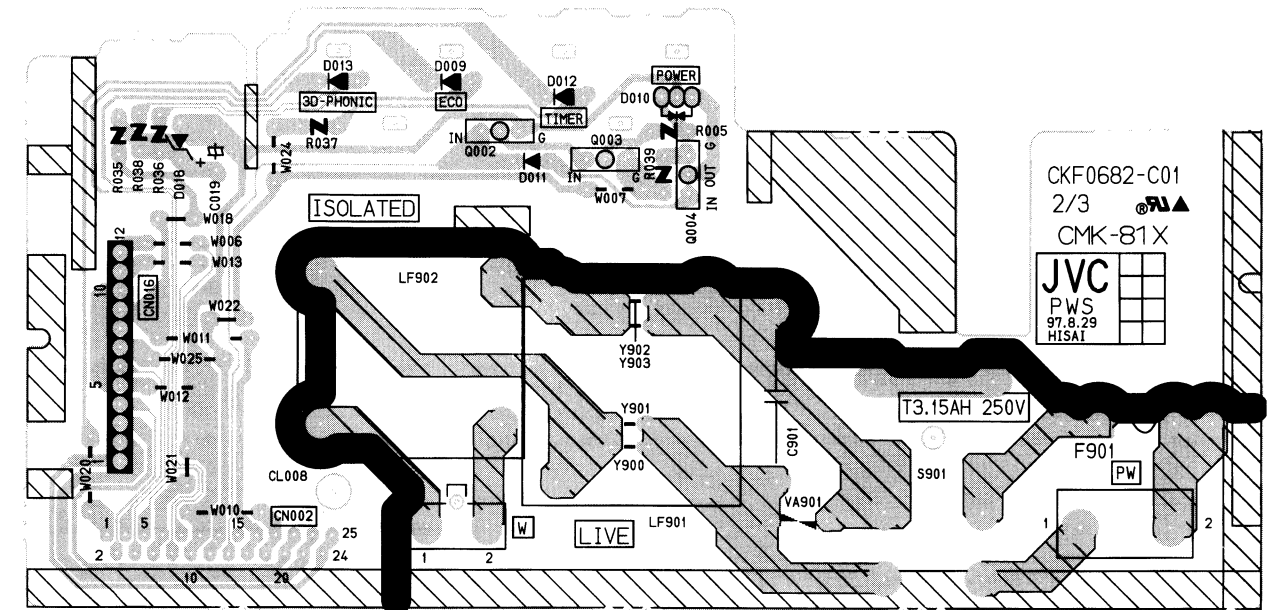
【 MAIN PWB PATTERN (SOLDER SIDE) 】



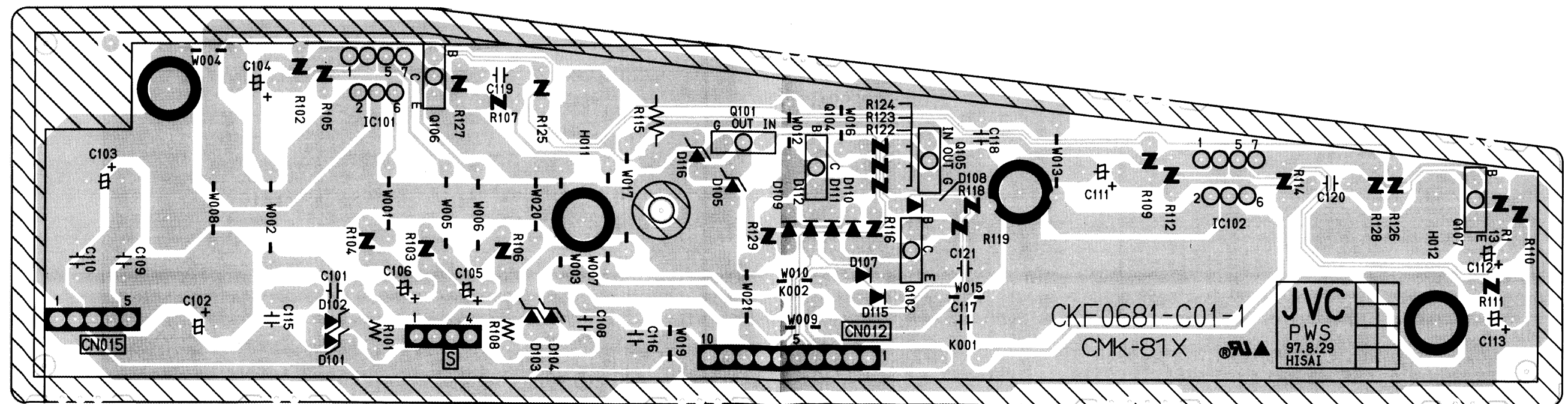
【 FRONT CONTROL PWB PATTERN 1 】



【 FRONT CONTROL PWB PATTERN 2 】

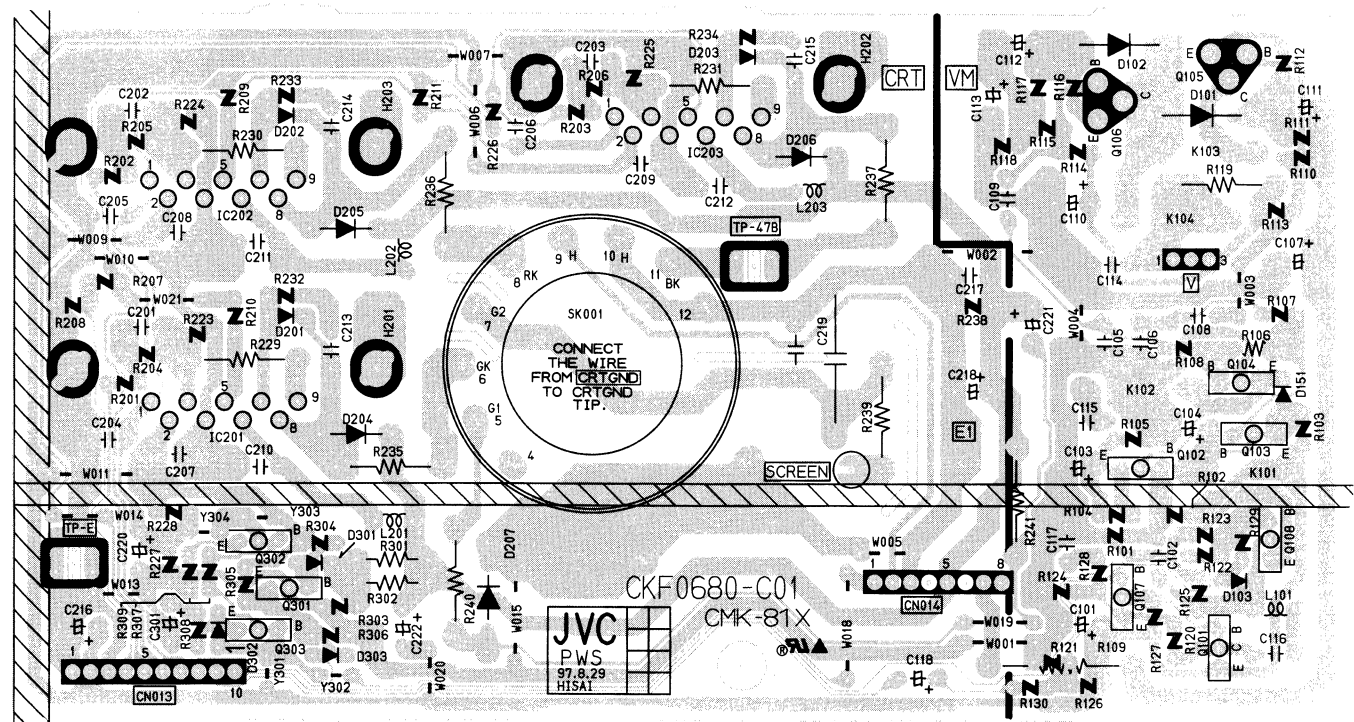


【 AUDIO PWB PATTERN 】



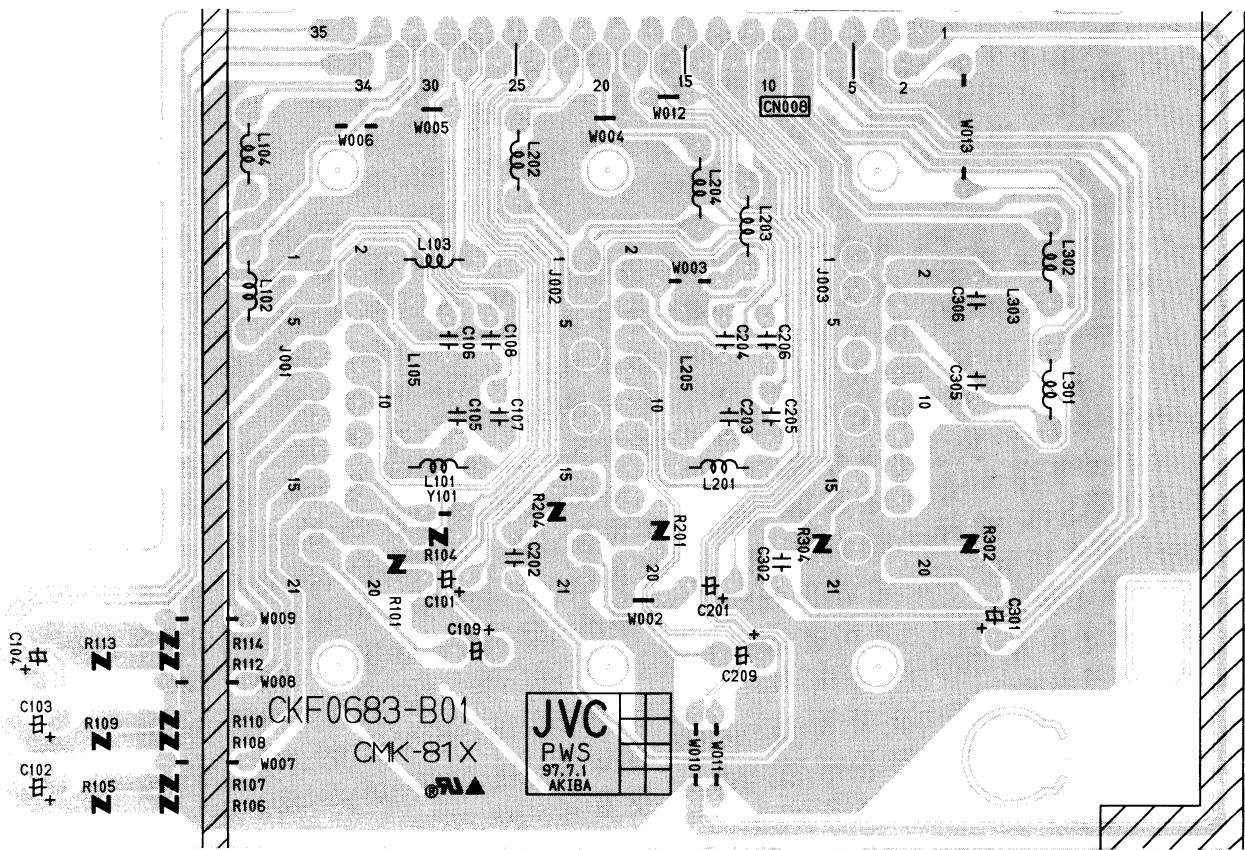
AV-32WP2EN
AV-32WP2EP

【 CRT SOCKET PWB PATTERN 】



AV-32WP2EN
AV-32WP2EP

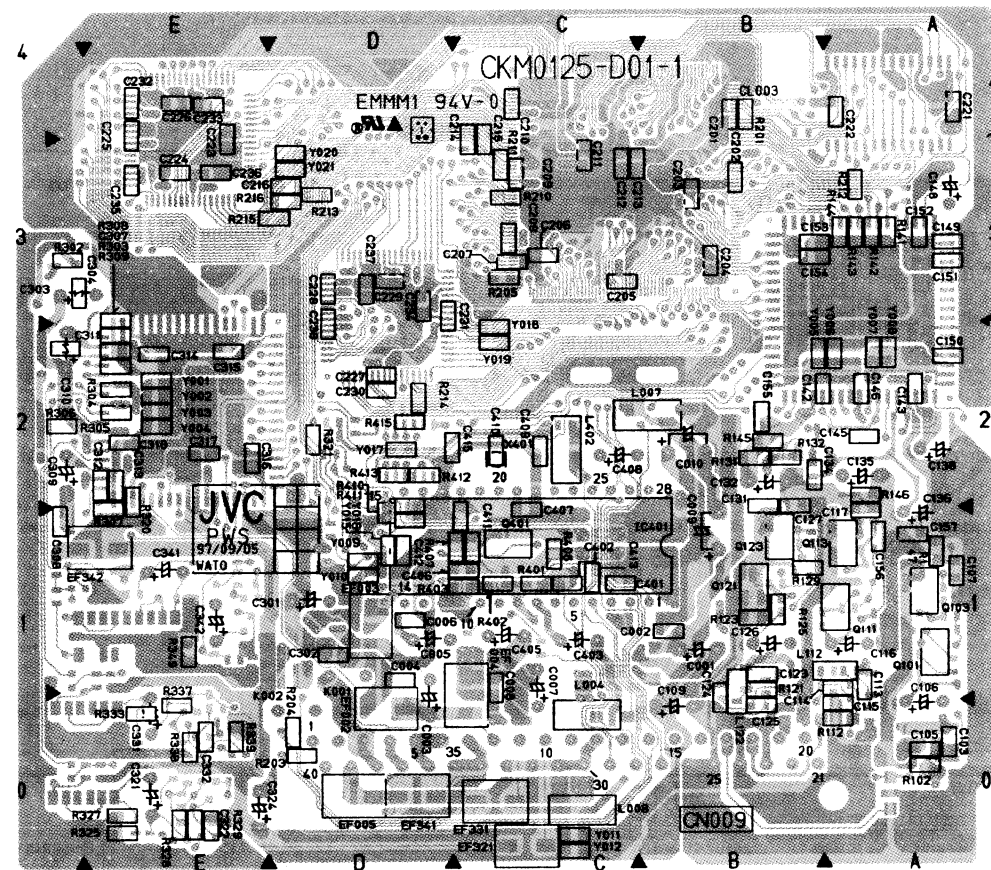
【 AV TER. PWB PATTERN 】



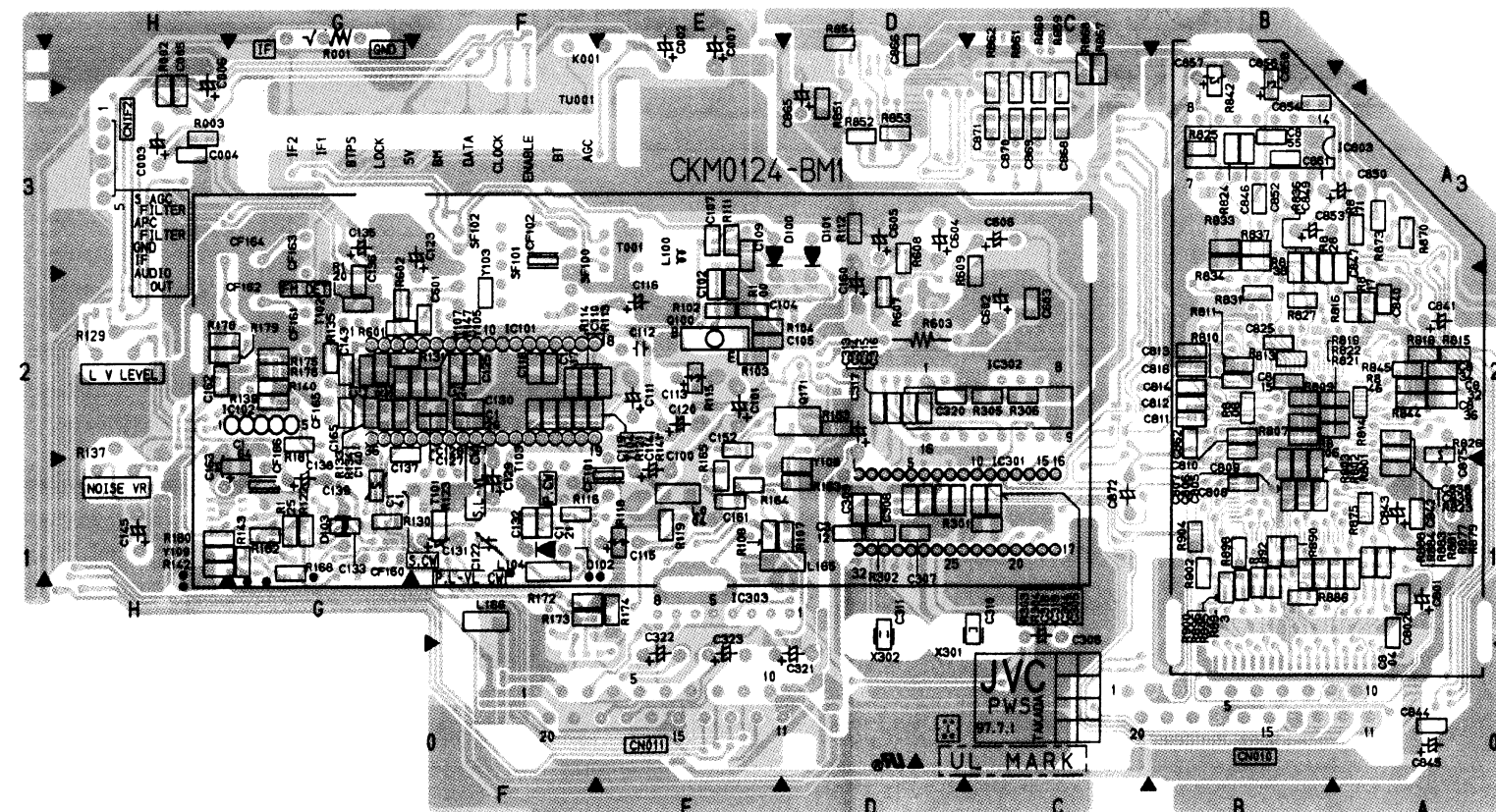
AV-32WP2EN
AV-32WP2EP

AV-32WP2EN
AV-32WP2EP

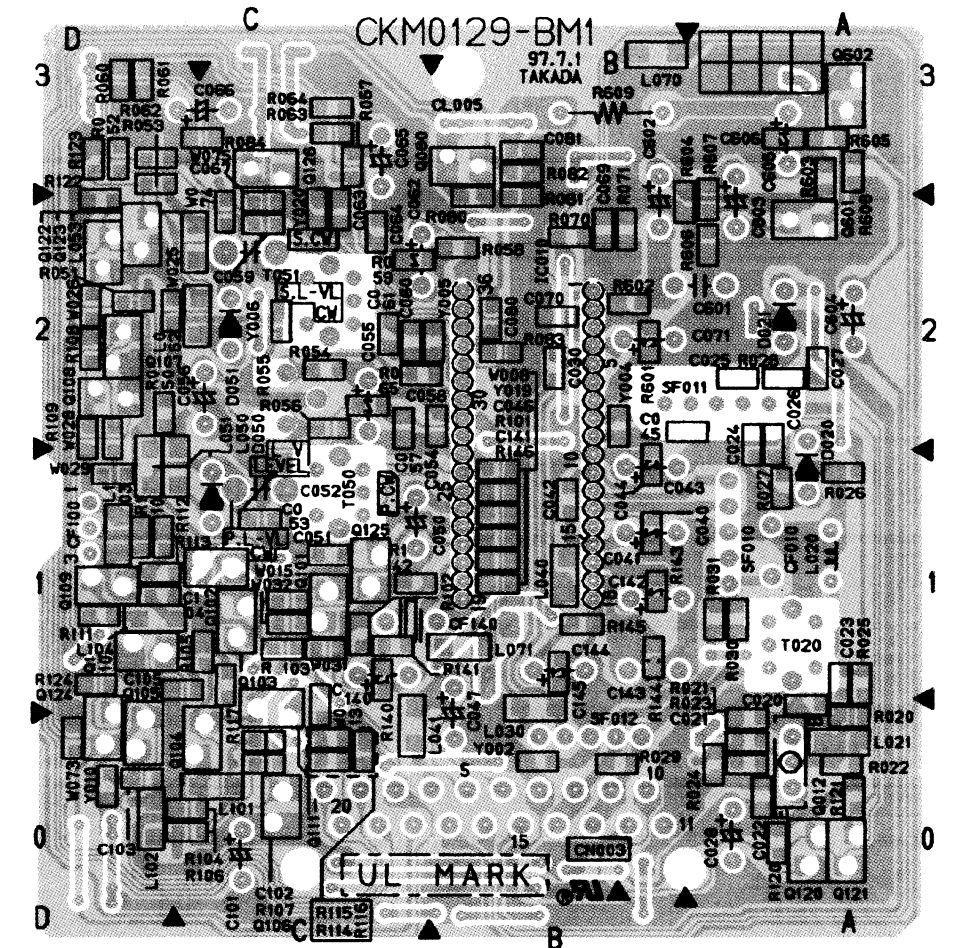
【 100Hz PWB PATTERN (BOTTOM VIEW) 】



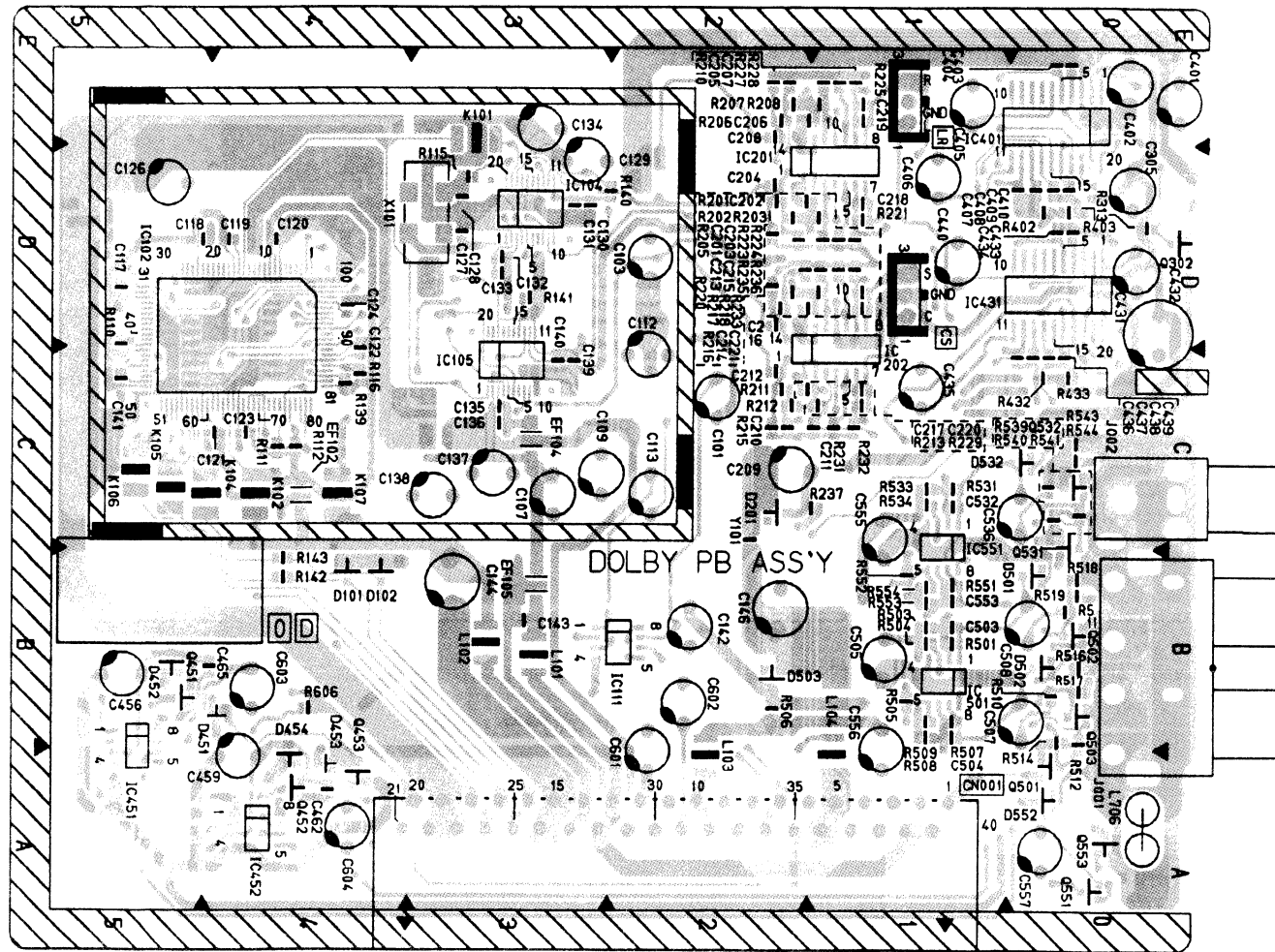
【 P&P PWB PATTERN (BOTTOM VIEW) 】



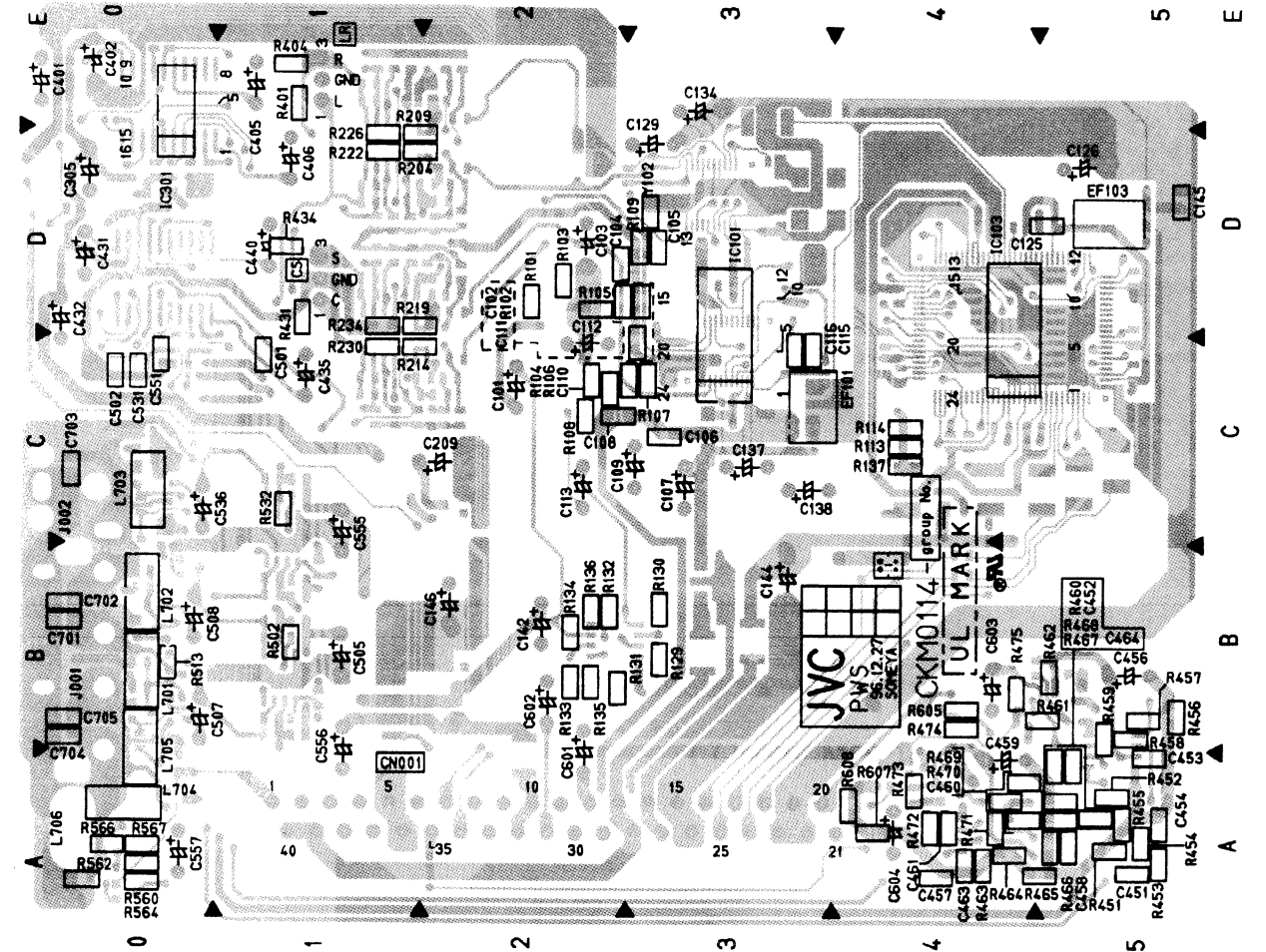
【 IF PWB PATTERN (BOTTOM VIEW) 】



【 DOLBY PWB PATTERN (TOP VIEW) 】



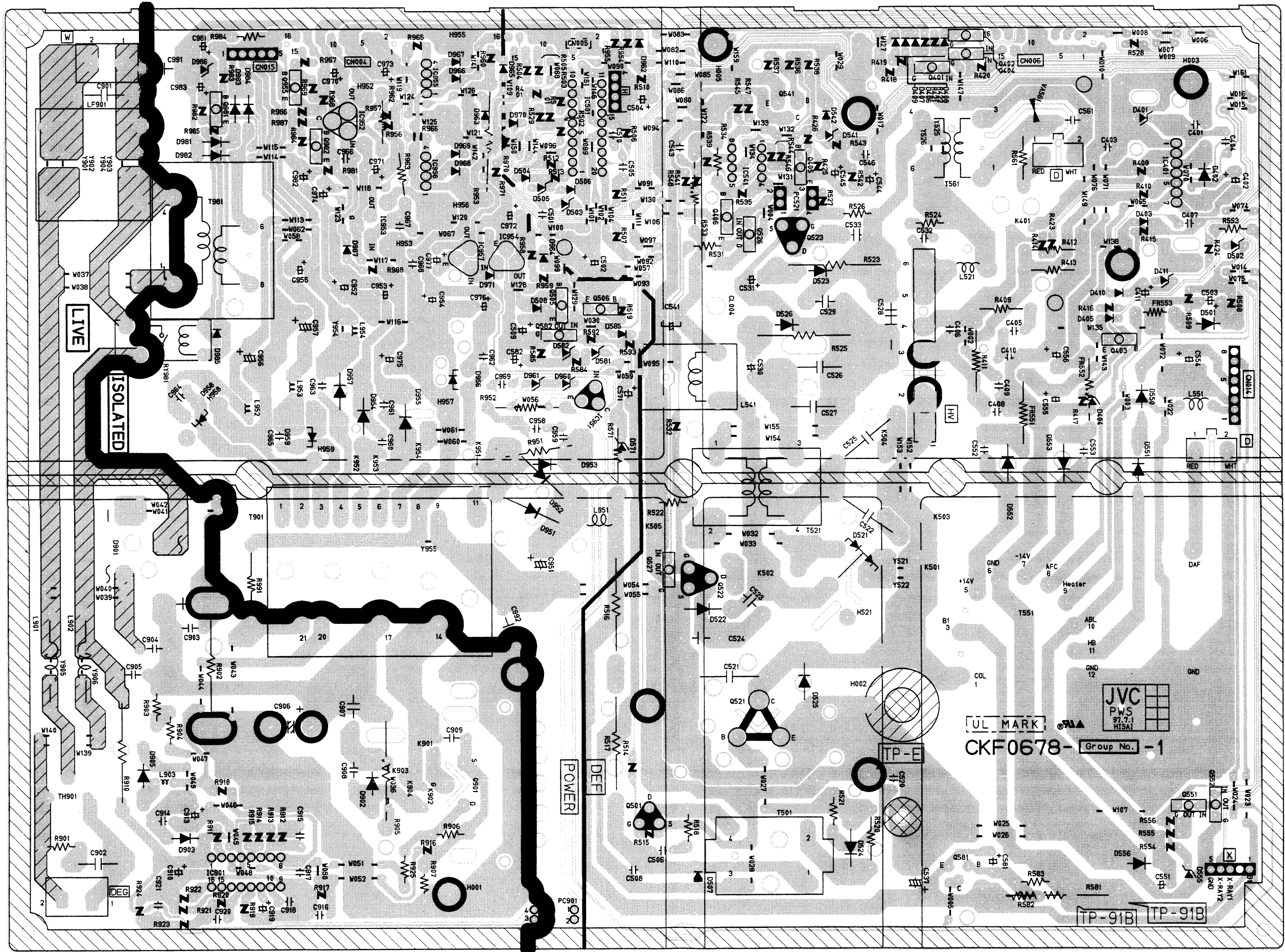
【 DOLBY PWB PATTERN (BOTTOM VIEW) 】



AV-32WP2EN
AV-32WP2EP

AV-32WP2EN
AV-32WP2EP

【 POWER DEF PWB PATTERN 】



AV-32WP2EN
AV-32WP2EP

AV-32WP2EN
AV-32WP2EP

